

Living Collections Report

2022

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Location and Climate

Latitude, longitude: 49.5 N, 123.5 W

Total land area: 22.46 hectares (55 acres)

Elevation: 106 to 141 metres (350 to 464 ft)

Temperature: Coldest month (December): 2.7° C (36.9° F) average temp.

Warmest month (August): 18.2° C (64.7° F) average temp.

Record low, past 50 years: -15.3° C (4.46° F), December 27, 2021

Record high, past 50 years: 34.9° C (95° F), July 29, 2009

Average annual precipitation: 146 cm (57.5 in)

Monthly averages:

	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEP	OCT	NOV	DEC
Temp.	2.9° C (37.2 F)	3.2° C (37.7 F)	4.9° C (40.9 F)	7.8° C (46.1 F)	11.8° C (53.2 F)	14.7° C (58.4 F)	17.9° C (64.2 F)	18.2° C (64.7 F)	14.8° C (58.7 F)	10° C (50.1 F)	5.5° C (42 F)	2.7° C (36.9 F)
Precip.	312 mm (12 in)	200 mm (7 in)	257 mm (10 in)	181 mm (7 in)	120 mm (4 in)	103 mm (4 in)	56 mm (2 in)	75 mm (2 in)	123 mm (4 in)	253 mm (9 in)	362 mm (14 in)	309 mm (12 in)

Reference: en.climate-data.org

Average sun hours: 1,940 sun hours per year; 285 days per year

Average growing season: 180 days

Plant Hardiness Zone: 8

Summary of Plants & Living Collections

Complete, up-to-date print copies of the Plant Collections Records are available at the Visitor Information desk, Library, Volunteer Lounge, Guides cart and Service Yard. **To receive the electronic form**, sent quarterly, please contact Plant Documentation Technician at samantha.sivertz@vancouver.ca to have your name added to the mailing list.

TAXA: 7,508 Taxa (species, subspecies, varieties, cultivars)

7,013 Angiosperm taxa (flowering plants): 1,369 Monocots; 5,644 Eudicots

172 Gymnosperm taxa (conifers, cycads, *Ginkgo*, gnetophytes)

151 Pteridophyte taxa (ferns and fern allies)

4 Lycophyte taxa (club mosses and allies)

552 Species-at-risk (vulnerable, threatened or endangered taxa, globally or regionally)

1,055 Genera

199 Plant Families

NEW PLANTS FOR 2022 (see page 4 for list)

161 New taxa to the living collections (new species, varieties, subspecies or cultivars)

245 New accessions

3,020 New plants

ACCESSIONS: 11,750 Accessions: 11,469 garden-origin; 218 wild-origin

COLLECTIONS: 70 collections (see below for complete list)

Living Collections

Total Collections: 70

Cultural Collections: 4

Ecological and Biological Collections: 4

Geographical Collections: 23

Taxonomic and Evolutionary Collections: 24

Ornamental and Landscape Collections: 16

Cultural Collections

Canadian Medicinal Garden (Canadian Heritage Garden)

Medicine Wheel (Canadian Heritage Garden)

Meditation Garden

Vegetable Garden

Ecological and Biological Collections

Alpine Troughs

Backyard Bird Garden

BC Habitat Garden

Stanley Smith Rock Garden

Geographical Collections

Australia & New Zealand Garden

Canadian Heritage Garden

- Acadian Forest
- Alpine Floral Region
- Aspen Parkland
- Boreal Forest
- Canadian Cultivars
- Canadian Medicinal Garden
- Carolinian Forest
- Great Lakes – St. Lawrence Forest
- BC Heritage Apple Orchard
- Pacific Coast Coniferous Forest
- Pacific Rainshadow Forest
- Prairie Grassland and Medicine Wheel
- Western Montane Region

Cascadia Garden

Chilean Garden

Eastern North America Garden

Japanese Collection

Mediterranean Garden
Sino-Himalayan Garden
South African Garden
Southern Hemisphere Garden

Taxonomic and Evolutionary Collections

Ashes (*Fraxinus*)
Azaleas (Deciduous)
Azaleas (Evergreen)
Beeches (*Fagus*)
Camellias (*Camellia*)
Conifers
Cypress Family (Cupressaceae)
Fern Dell
Ginkgoes
Honorable David C. Lam Cherry Grove
Hydrangeas (*Hydrangea*)
Japanese Maples
Laburnum Walk
Lindens (*Tilia*)
Magnolias (APGA Plant Collections Network
(PCN) Magnolia Collection)
Maples (*Acer*)
Meconopsis Dell
Mountain Ashes (*Sorbus*)
Oaks (*Quercus*)
Rhododendron Walk (including Loderi hybrids)
Roses – Formal Rose Garden
Roses – Heritage Rose Garden
Tree Peonies
Witchhazels (*Hamamelis*)

Ornamental and Landscape Collections

Alma VanDusen Garden
Alma VanDusen Meadow
Astilbe Collection
Autumn Stroll (fall colour arboretum)
Black Garden
Fragrance Garden
Heather Garden
Herb Garden
Maze
North American Cultivars

Ornamental Grasses
Perennial Garden
Phyllis Bentall Garden (Perennials)
Stone Garden
Winter Walk
Woodland Garden

Water Features

Alma VanDusen Stream
Cascade Bend
Cascadia Garden stream
Forest Lake
Heather Pond
Heritage Pond
Heron Lake
Livingstone Lake
Meadow Ponds
R. Roy Forster Cypress Pond
Shaughnessy Lake
Waterfall

Garden Features

Bee Hives
Floating Bridge (R. Roy Forster Cypress Pond)
Gazebo
Korean Pavilion
Lathhouse
Maze
Scottish Shelter
Zigzag Bridge (Heron and Livingstone Lakes)

Buildings & Public Spaces

- Floral Hall Pavilion (includes Cedar Room, Floral Hall)
- MacMillan Bloedel Place (formerly Education Centre) – CLOSED
- Service Yard (includes service building; greenhouses)
- Shaughnessy Pavilion (Magnolia Room, Shaughnessy Restaurant)
- Visitor Centre (BMO Great Hall, Classroom, Garden Shop, Library, Truffles Café, Volunteer Lounge, Woodland Hall A and B)

NEW to the Collections in 2022

Listed here are the new plants acquired for the Garden in 2022. A total of **3,020 plants (245 accessions)** were acquired in 2022, of which **161 species, varieties and cultivars were NEW taxa to the collections.**

New to the Collections in 2022	Common name	Family	Nativity	Habit	Accession
<i>Acanthus mollis</i> 'Whitewater'	bear's breeches	Acanthaceae	Garden Origin	HD	2022-0231
<i>Acis autumnalis</i>	autumn snowflake	Amaryllidaceae	Mediterranean	BU	2022-0008
<i>Adiantum venustum</i>	evergreen maidenhair fern	Pteridaceae	Afghan & Him	HE	2022-0041
<i>Agastache</i> 'Blue Fortune'	giant hyssop	Lamiaceae	Garden origin	HD	2022-0199
<i>Agave schidigera</i> 'Royal Flush'		Asparagaceae	Garden origin	HE	2022-0173
<i>Albizia julibrissin</i> 'E.H. Wilson'	silk tree	Fabaceae	Garden Origin	TD	2022-0186
<i>Albizia julibrissin</i> 'Summer Chocolate'	silk tree	Fabaceae	Garden Origin	TD	2022-0165
<i>Albuca shawii</i>	lantern flower	Liliaceae	S Africa	HE	2022-0009
<i>Allium cernuum</i>	nodding onion	Amaryllidaceae	N Amer	BU	2022-0052
<i>Allium schoenoprasum</i>	common chives	Amaryllidaceae	Temp. N hemisphere	BU	2022-0128
<i>Aloe</i> 'Oik'	dwarf hybrid aloe	Xanthorrhoeaceae	Garden origin	SE	2022-0174
<i>Amorphophallus dunnii</i>	voodoo lily	Araceae	China (Guangdong, Guangxi)	HD	2022-0053
<i>Amorphophallus konjac</i>	devil's tongue	Araceae	Japan, China to Indonesia	HD	2022-0054
<i>Anaphalis margaritacea</i>	pearly everlasting	Asteraceae	N Amer, Asia	HD	2022-0055
<i>Anemonopsis macrophylla</i> (double-flowered form)	false anemone	Ranunculaceae	Japan	HD	2022-0056
<i>Anemopsis californica</i>	yerba mansa	Saururaceae	W&C USA to Mexico	HD	2022-0143
<i>Angelica atropurpurea</i>	alexanders	Apiaceae	ENA	HD	2022-0144
<i>Angelica gigas</i>	Korean angelica	Apiaceae	E Asia	HD	2022-0145
<i>Antirrhinum hispanicum</i> 'Roseum'	snapdragon	Plantaginaceae	Garden origin	HD	2022-0175
<i>Aquilegia canadensis</i> 'Little Lanterns'	meeting houses	Ranunculaceae	Garden Origin	HD	2022-0221
<i>Aquilegia formosa</i>	Sitka columbine	Ranunculaceae	WNA	HD	2022-0057
<i>Arachniodes simplicior</i> 'Variegata'	variegated holly fern	Dryopteridaceae	Garden Origin	HD	2022-0042
<i>Arctostaphylos columbiana</i>	hairy manzanita	Ericaceae	WNA (S BC to N Calif)	SE	2022-0154
<i>Arctostaphylos uva-ursi</i>	kinnikinnick, bearberry	Ericaceae	N America, Eurasia (circumboreal)	SE	2022-0058
<i>Arctostaphylos uva-ursi</i> 'Massachusetts'	kinnikinnick	Ericaceae	Garden Origin	SE	2022-0155
<i>Arisaema candidissimum</i>	pink cobra lily	Araceae	w China	HD	2022-0059
<i>Arisaema griffithii</i>	cobra lily	Araceae	E Himalayas	HD	2022-0060
<i>Arisaema griffithii</i> var. <i>pradhanii</i>	Pradhan's cobra lily	Araceae	Darjeeling & Sikkim	HD	2022-0112
<i>Arisaema sikokianum</i>	cobra lily	Araceae	China & Japan	HD	2022-0061
<i>Arisaema thunbergii</i> subsp. <i>urashima</i>	cobra lily	Araceae	Japan	HD	2022-0062
<i>Arisaema tortuosum</i> subsp. <i>helleborifolium</i>	tortuous cobra lily	Araceae	N India	HD	2022-0114

New to the Collections in 2022	Common name	Family	Nativity	Habit	Accession
<i>Arisaema triphyllum</i>	jack-in-the-pulpit	Araceae	E North America	HD	2022-0063
<i>Arisaema utile</i>	cobra lily	Araceae	Himalayas	HD	2022-0113
<i>Asarum caudatum</i>	western wild ginger	Aristolochiaceae	W North America	HD	2022-0064
<i>Asarum maximum</i>	panda face wild ginger	Aristolochiaceae	China	HD	2022-0065
<i>Azara microphylla</i>	Box-leaf Azara, chinchín	Salicaceae	Chile & Argentina	SE	2022-0028
<i>Baptisia australis</i>	blue false indigo	Fabaceae	E USA	HD	2022-0200
<i>Bergenia 'Bressingham White'</i>	elephant's ears, pigsqueak	Saxifragaceae	Garden Origin	HE	2022-0092
<i>Berlandiera lyrata</i>	green eyes	Asteraceae	N Amer	HD	2022-0146
<i>Blechnum spicant</i>	deer fern	Blechnaceae	WNA & Eurasia	HE	2022-0043
<i>Callistemon citrinus</i>	crimson bottlebrush	Myrtaceae	Australia (NSW & Vic)	SE	2022-0222
<i>Callistemon 'Woodlander's Red'</i>	red bottlebrush	Myrtaceae	Garden Origin	SE	2022-0103
<i>Cardiocrinum giganteum</i>	giant Himalayan lily	Liliaceae	Himalayas & SE Tibet	HD	2022-0066
<i>Carex densa</i>	dense sedge	Cyperaceae	WNA (Wash. to Mexico)	HE	2022-0124
<i>Carex morrowii 'Everglow'</i>	variegated Japanese sedge	Cyperaceae	Garden Origin	HE	2022-0093
<i>Castilleja miniata</i>	scarlet paintbrush	Orobanchaceae	WNA	HD	2022-0115
<i>Catananche caerulea</i>	cupid's dart	Asteraceae	S Europe	HD	2022-0223
<i>Caulophyllum thalictroides</i>	blue cohosh	Berberidaceae	E North America	HD	2022-0129
<i>Choisya ternata</i> [Sundance] = 'Lich'	Mexican mock orange	Rutaceae	Garden Origin	SE	2022-0166
<i>Cirsium rivulare 'Atropurpureum'</i>	plume thistle	Asteraceae	Garden Origin	HD	2022-0177
<i>Cistus x argenteus 'Silver Pink'</i>	rockrose	Cistaceae	Garden Origin	SE	2022-0105
<i>Cistus x hybridus</i>	hybrid rockrose	Cistaceae	Garden Origin	SE	2022-0106
<i>Cistus x purpureus</i>	hybrid rockrose	Cistaceae	Garden Origin	SE	2022-0104
<i>Clinopodium serpyllifolium</i> subsp. fruticosum	zuta levana, white-leaved savory	Lamiaceae	E Mediterranean	HD	2022-0130
<i>Codonopsis subscaposa</i>		Campanulaceae	China (Sichuan, Yunnan)	HD	2022-0010
<i>Cornus officinalis</i>	Japanese cornel	Cornaceae	China, Japan & Korea	SD	2022-0029
<i>Corokia cotoneaster</i>	wire-netting bush, korokio	Argophyllaceae	New Zealand	SE	2022-0030
<i>Cortaderia selloana</i>	pampas grass	Poaceae	Brazil, Chile & Argentina	HE	2022-0224
<i>Corydalis flexuosa 'Père David'</i>	blue corydalis	Papaveraceae	Garden Origin	HD	2022-0067
<i>Corylus avellana 'Contorta'</i>	Harry Lauder's walking stick	Betulaceae	Garden Origin	SD	2022-0188
<i>Crassula</i> Group 5	stonecrop	Crassulaceae	Garden origin	HE	2022-0176
<i>Crocsmia 'Spanish Ballerina'</i>	montbretia	Iridaceae	Garden Origin	HD	2022-0116
<i>Cynara cardunculus Scolymus</i> Group	globe artichoke	Asteraceae	Mediterranean region	HD	2022-0232
<i>Cypripedium formosanum</i>	lady's-slipper orchid	Orchidaceae	Taiwan	HD	2022-0068
<i>Cypripedium Philipp</i> gx	lady's-slipper orchid	Orchidaceae	Garden Origin	HD	2022-0069
<i>Cyrtomium falcatum</i>	Japanese holly fern	Dryopteridaceae	E Asia	HE	2022-0044
<i>Daphne odora</i>	winter daphne	Thymelaeaceae	China & Japan	SE	2022-0031

New to the Collections in 2022	Common name	Family	Nativity	Habit	Accession
Daphne x transatlantica [Eternal Fragrance]		Thymelaeaceae	Garden Origin	SE	2022-0167
Decumaria barbara	wood vamp	Hydrangeaceae	SE USA	SD	2022-0070
Dianthus deltoides 'Confetti White'	maiden pink	Caryophyllaceae	Garden Origin	HE	2022-0201
Dichroa febrifuga		Hydrangeaceae	C Nepal to Darjeeling	SD	2022-0032
Dicksonia fibrosa	wheki ponga	Dicksoniaceae	New Zealand	SE	2022-0045
Dicksonia squarrosa	wheki	Dicksoniaceae	New Zealand	SE	2022-0046
Diervilla rivularis [Honeybee]	bush honeysuckle	Caprifoliaceae	Garden Origin	SD	2022-0125
Dioscorea japonica	Japanese mountain yam, yamaimo	Dioscoreaceae	E Asia	HE	2022-0071
Dryopteris atrata	shaggy shield fern	Dryopteridaceae	China, Taiwan, N SE Asia	HE	2022-0047
Echinacea [BUTTERFLY RAINBOW MARCELLA] = 'Rainb299'	coneflower	Asteraceae	Garden Origin	HD	2022-0202
Echinacea [DOUBLE SCOOP LEMON CREAM] = 'Balsclemc'	coneflower	Asteraceae	Garden Origin	HD	2022-0203
Echinacea [KISMET WHITE]	dwarf coneflower	Asteraceae	Garden origin	HD	2022-0179
Echinacea [PRETTY PARASOLS]	coneflower	Asteraceae	Garden Origin	HD	2022-0233
Echinacea [TRES AMIGOS]	coneflower	Asteraceae	Garden origin	HD	2022-0178
Echinacea purpurea 'Green Twister'	coneflower	Asteraceae	Garden Origin	HD	2022-0204
Echinacea 'Virgin'	coneflower	Asteraceae	Garden Origin	HD	2022-0205
Echium amoenum 'Red Feathers'	Iranian ox-tongue	Boraginaceae	Garden Origin	HD	2022-0180
Eryngium planum 'Blue Hobbit'	sea holly	Apiaceae	Garden Origin	HE	2022-0094
Erysimum [Winter Orchid]	wallflower	Brassicaceae	Garden Origin	HE	2022-0195
Eucalyptus archeri	alpine cider gum	Myrtaceae	Australia (Tasmania)	TE	2022-0169
Eucalyptus neglecta	Omeo gum	Myrtaceae	Australia (Victoria)	TE	2022-0170
Eucalyptus pauciflora subsp. debeuzevillei	Jounama snow gum	Myrtaceae	SE Australia	TE	2022-0168
Euonymus fortunei 'Coloratus'	wintercreeper	Celastraceae	Garden Origin	SE	2022-0095
Euonymus fortunei 'Wolong Ghost'	silver-veined wintercreeper	Celastraceae	Garden Origin	SE	2022-0206
Fatsia japonica 'Spider's Web'	Japanese fatsia, fatsi	Araliaceae	Garden Origin	SE	2022-0225
Fritillaria pallidiflora	fritillary	Liliaceae	NW China & E Siberia	BU	2022-0011
Geum [Scarlet Tempest]	avens	Rosaceae	Garden Origin	HD	2022-0117
Geum 'Mrs J. Bradshaw'	avens	Rosaceae	Garden Origin	HD	2022-0226
Glycyrrhiza lepidota	wild licorice	Fabaceae	Canada to NE Mexico	HD	2022-0147
Hakonechloa macra 'All Gold'	golden hakone grass	Poaceae	Garden Origin	HE	2022-0207
Hedychium flavescens	yellow ginger	Zingiberaceae	Bengal	HD	2022-0072
Heliopsis helianthoides 'Sunstruck'	false-sunflower	Asteraceae	Garden Origin	HD	2022-0228
Helleborus [FROSTKISS ANNA'S RED]	hybrid hellebore	Ranunculaceae	Garden Origin	HE	2022-0227
Helleborus x hybridus Cherry Blossom (Winter Jewels Series)	hybrid hellebore	Ranunculaceae	Garden Origin	HE	2022-0073

New to the Collections in 2022	Common name	Family	Nativity	Habit	Accession
Helleborus x hybridus 'Kingston Cardinal'	hybrid hellebore	Ranunculaceae	Garden Origin	HE	2022-0074
Helleborus x hybridus Painted (Winter Jewels Series)	hybrid hellebore	Ranunculaceae	Garden Origin	HE	2022-0075
Heuchera [CARNIVAL WATERMELON] = 'Balcarmelo'	coralbell	Saxifragaceae	Garden Origin	HD	2022-0208
Heuchera 'Topaz Jazz'	coralbell	Saxifragaceae	Garden Origin	HD	2022-0209
x Heucherella 'Buttered Rum'	foambell	Saxifragaceae	Garden Origin	HE	2022-0210
x Heucherella 'Solar Eclipse'	foambell	Saxifragaceae	Garden Origin	HE	2022-0211
x Heucherella 'Sweet Tea'	foambell	Saxifragaceae	Garden Origin	HE	2022-0096
Hosta 'Blue Angel'		Asparagaceae	Garden Origin	HD	2022-0212
Hosta 'Stained Glass'		Asparagaceae	Garden Origin	HD	2022-0156
Hydrangea anomala subsp. petiolaris	climbing hydrangea	Hydrangeaceae	E Asia	VD	2022-0157
Hydrangea aspera [Plum Passion]	rough-leaf hydrangea	Hydrangeaceae	Garden Origin	SD	2022-0109
Hydrangea macrophylla 'Zebra' (Onyx Series)	bigleaf or mophead hydrangea	Hydrangeaceae	Garden Origin	SD	2022-0108
Hydrangea paniculata [Angel's Blush]	peegee hydrangea	Hydrangeaceae	Garden Origin	SD	2022-0126
Hydrangea paniculata 'Limelight'	peegee hydrangea	Hydrangeaceae	Garden Origin	SD	2022-0107
Hydrangea quercifolia 'Munchkin'	oakleaf hydrangea	Hydrangeaceae	Garden Origin	SD	2022-0171
Hydrangea quercifolia 'Ruby Slippers'	oakleaf hydrangea	Hydrangeaceae	Garden Origin	SD	2022-0172
Iris bucharica	Juno iris	Iridaceae	Afghan & Tajikistan	HD	2022-0013
Iris ensata 'White Ladies'	Japanese water iris	Iridaceae	Garden Origin	HD	2022-0076
Juniperus squamata 'Meyeri'	Meyer's juniper	Cupressaceae	Garden Origin	SC	2022-0150
Lamium maculatum 'Red Nancy'	spotted dead nettle	Lamiaceae	Garden Origin	HD	2022-0097
Lavandula 'Avignon Early Blue'	hybrid lavender	Lamiaceae	Garden Origin	HE	2022-0149
Lavatera 'Barnsley Baby'	shrubby mallow	Malvaceae	Garden Origin	HE	2022-0090
Lilium hansonii	Hanson's lily	Liliaceae	Japan, Korea & Siberia	BU	2022-0077
Linum perenne 'Bright Blue'	perennial flax	Linaceae	Garden Origin	HD	2022-0213
Liriope muscari 'Royal Purple'	lilyturf	Asparagaceae	Garden Origin	HE	2022-0118
Lobelia tupa	devil's tobacco, tobacco del diablo	Campanulaceae	Chile, Juan Fernandez Is, Peru	HD	2022-0196
Lonicera fragrantissima	winter-flowering honeysuckle	Caprifoliaceae	China	SE	2022-0033
Lysichiton camtschatcensis	skunk cabbage	Araceae	NE Asia	HD	2022-0078
Mahonia aquifolium	tall Oregon grape	Berberidaceae	WNA	SE	2022-0034
Mahonia repens	creeping Oregon grape	Berberidaceae	WNA	SE	2022-0035
Malus domestica 'Flower of Kent'	Isaac Newton's tree	Rosaceae	Garden Origin	TD	2022-0247
Malus fusca	Pacific crabapple	Rosaceae	WNA	TD	2022-0036
Marrubium rotundifolium	silver-edged horehound	Lamiaceae	Turkey	HSE	2022-0229

New to the Collections in 2022	Common name	Family	Nativity	Habit	Accession
Meconopsis (Fertile Blue Group) 'Lingholm'	Himalayan blue poppy	Papaveraceae	Garden Origin	HE	2022-0189
Meconopsis balangensis var. atrata	Balang blue poppy	Papaveraceae	China (W Sichuan)	HD	2022-0001
Meconopsis grandis	Himalayan poppy	Papaveraceae	SW China to W Nepal	HD	2022-0190
Meconopsis integrifolia	lampshade poppy	Papaveraceae	W China & E Himalayas	HD	2022-0003
Meconopsis integrifolia	lampshade poppy	Papaveraceae	W China & E Himalayas	HD	2022-0004
Meconopsis integrifolia	lampshade poppy	Papaveraceae	W China & E Himalayas	HD	2022-0005
Meconopsis merakensis	Merak blue poppy	Papaveraceae	E Himalaya	HD	2022-0006
Meconopsis napaulensis	satin poppy	Papaveraceae	SW China to W Nepal	HE	2022-0007
Meconopsis racemosa	Himalayan poppy	Papaveraceae	China	HD	2022-0193
Meconopsis staintonii red-flowered selection	Himalayan poppy	Papaveraceae	Garden Origin	HE	2022-0192
Meconopsis staintonii white-flowered selection	Himalayan poppy	Papaveraceae	Garden Origin	HE	2022-0191
Monarda didyma (rose-scented selection)	bee balm, bergamot	Lamiaceae	Eastern USA	HD	2022-0131
Monarda didyma [BeeMine Red]	bee balm, bergamot	Lamiaceae	Garden Origin	HD	2022-0181
Monarda didyma 'Coral Reef'	bee balm, bergamot	Lamiaceae	Garden Origin	HD	2022-0158
Monarda 'Marshall's Delight'	bee balm	Lamiaceae	Garden Origin	HD	2022-0132
Mukdenia rossii		Saxifragaceae	N China & Korea	HD	2022-0079
Nandina domestica 'Gulf Stream'	heavenly bamboo	Berberidaceae	Garden Origin	SE	2022-0098
Nandina domestica 'Gulf Stream'	heavenly bamboo	Berberidaceae	Garden Origin	SE	2022-0159
Nepeta x faassenii 'Purrsian Blue'	Faassen's catmint	Lamiaceae	Garden Origin	HD	2022-0160
Oenothera macrocarpa subsp. incana 'Silver Blade'	evening primrose	Onagraceae	Garden Origin	HD	2022-0099
Ophiopogon japonicus 'Gyoku-Ryu'	mondo grass	Asparagaceae	Garden Origin	HE	2022-0214
Origanum majorana	sweet marjoram	Lamiaceae	Mediterranean & Turkey	HD	2022-0133
Othonna capensis	little-pickles	Asteraceae	South Africa	HE	2022-0161
Oxalis griffithii (double-flowered form)	wood-sorrel	Oxalidaceae	S, E & SE Asia	HD	2022-0080
Panax japonicus	Japanese ginseng	Araliaceae	China, Japan, Korea and Vietnam	HD	2022-0081
Panicum virgatum Rotstrahlbusch'	switch grass	Poaceae	Garden Origin	HD	2022-0100
Penstemon [Red Rocks] = 'P008s'	hybrid beard tongue	Plantaginaceae	Garden Origin	HD	2022-0163
Penstemon 'Midnight Masquerade'	beard tongue	Plantaginaceae	Garden Origin	HD	2022-0162
Perovskia atriplicifolia	Russian sage	Lamiaceae	Himalayas & W China	HD	2022-0198
Perovskia 'Blue Spire'	Russian sage	Lamiaceae	Garden Origin	HD	2022-0194
Peucedanum ostruthium 'Daphnis'	masterwort	Apiaceae	Garden origin	HD	2022-0182
Phegopteris decursive-pinnata	Himalayan beech fern	Thelypteridaceae	Himalayas & E Asia	HE	2022-0051
Pinus densiflora 'Umbraculifera'	Japanese umbrella pine	Pinaceae	Garden Origin	TC	2022-0153

New to the Collections in 2022	Common name	Family	Nativity	Habit	Accession
Pinus koraiensis 'Jack Corbit'	dwarf Korean pine	Pinaceae	Garden Origin	TC	2022-0152
Podophyllum delavayi	Chinese mayapple	Berberidaceae	W China	HD	2022-0082
Polemonium caeruleum	Jacob's ladder	Polemoniaceae	Europe & Asia	HD	2022-0134
Polystichum munitum	western sword fern	Dryopteridaceae	Western North America	HE	2022-0164
Polystichum neolobatum	Asian saber fern	Dryopteridaceae	Nepal to China; Japan	HE	2022-0048
Polystichum retrosopalaceum	narrow tassel fern	Dryopteridaceae	E Asia	HE	2022-0049
Polystichum xiphophyllum	sword leaved holly fern	Dryopteridaceae	S China, Peninsular Malaysia & Taiwan	HE	2022-0050
Primula poissonii		Primulaceae	S China (Yunnan & Sich.)	HD	2022-0085
Primula rosea		Primulaceae	NW Himalayas	HD	2022-0086
Primula sieboldii (white lace selection)	Siebold's primrose	Primulaceae	Garden Origin	HD	2022-0084
Primula vialii	red-hot-poker primula	Primulaceae	NW China	HD	2022-0215
Primula waltonii		Primulaceae	E Him to S Tibet	HD	2022-0187
Pycnanthemum incanum	silverleaf mountainmint	Lamiaceae	E USA	HD	2022-0148
Ratibida columnifera (red selection)	prairie coneflower	Asteraceae	N Amer	HD	2022-0234
Rhodiola pachyclados	gray stonecrop	Crassulaceae	Afghanistan & Pakistan	HE	2022-0218
Rhododendron [Autumn Amethyst]	azalea	Ericaceae	Garden Origin	SD	2022-0101
Rhododendron [Autumn Chiffon]	azalea	Ericaceae	Garden Origin	SD	2022-0102
Ribes sanguineum	flowering currant	Grossulariaceae	WNA (BC to California)	SD	2022-0037
Rosa [Easy Going]	floribunda rose	Rosaceae	Garden Origin	SD	2022-0018
Rosa [Florentina]	climbing rose	Rosaceae	Garden Origin	SD	2022-0026
Rosa [Lasting Love]	hybrid tea rose	Rosaceae	Garden Origin	SD	2022-0016
Rosa [Lavender Crush]	climbing rose	Rosaceae	Garden Origin	SD	2022-0027
Rosa [Liberty]	shrub rose	Rosaceae	Garden Origin	SD	2022-0020
Rosa [Love & Peace]	hybrid tea rose	Rosaceae	Garden Origin	SD	2022-0022
Rosa [Miranda Lambert]	hybrid tea rose	Rosaceae	Garden Origin	SD	2022-0021
Rosa [Pretty Polly Lavender]	miniature rose	Rosaceae	Garden Origin	SD	2022-0024
Rosa [Savannah]	hybrid tea rose	Rosaceae	Garden Origin	SD	2022-0017
Rosa [South Africa]	floribunda rose	Rosaceae	Garden Origin	SD	2022-0023
Rosa [Summer Romance]	floribunda rose	Rosaceae	Garden Origin	SD	2022-0025
Rosa [Westerland]	climbing rose	Rosaceae	Garden Origin	SD	2022-0015
Rosa 'Algonquin'	hybrid rugosa	Rosaceae	Garden Origin	SD	2022-0235
Rosa 'Alike'	hybrid gallica	Rosaceae	Garden Origin	SD	2022-0236
Rosa 'Betty Bland'	hybrid blanda rose	Rosaceae	Garden Origin	SD	2022-0237
Rosa 'Betty Will'	shrub rose	Rosaceae	Garden Origin	SD	2022-0238
Rosa 'Cardinal de Richelieu'	hybrid China rose	Rosaceae	Garden Origin	SD	2022-0240
Rosa 'Caroyal'	hybrid rugosa	Rosaceae	Garden Origin	SD	2022-0239
Rosa 'Jump for Joy'	floribunda rose	Rosaceae	Garden Origin	SD	2022-0019
Rosa 'Mme Plantier'	alba rose	Rosaceae	Garden Origin	SD	2022-0242
Rosa 'Morden 6910'	shrub rose	Rosaceae	Garden Origin	SD	2022-0243

New to the Collections in 2022	Common name	Family	Nativity	Habit	Accession
Rosa 'Pacific Pearls'	hybrid rugosa	Rosaceae	Garden Origin	SD	2022-0244
Rosa 'Prairie Wren'	shrub rose	Rosaceae	Garden Origin	SD	2022-0245
Rosa 'Thérèse Bugnet'	hybrid rugosa rose	Rosaceae	Garden Origin	SD	2022-0246
Rosa 'Walter Schowalter'	shrub rose	Rosaceae	Garden Origin	SD	2022-0241
Rosmarinus officinalis	rosemary	Lamiaceae	Mediterranean	SE	2022-0135
Rosmarinus officinalis 'Hill Hardy'	dwarf rosemary	Lamiaceae	Garden Origin	SE	2022-0184
Rubus spectabilis (double-flowered selection)	salmonberry	Rosaceae	WNA	SD	2022-0038
Rumex acetosa 'Green de Belleville'	garden sorrel	Polygonaceae	Garden Origin	HD	2022-0136
Salix babylonica 'Aurea'	weeping willow	Salicaceae	Garden origin	TD	2022-0230
Salix candida [ICEBERG ALLEY]	sageleaf willow	Salicaceae	Garden Origin	SD	2022-0216
Salix caprea	pussy willow	Salicaceae	Europe to NE Asia	SD	2022-0091
Salvia nemorosa 'Caramia'	perennial sage	Lamiaceae	Garden Origin	HD	2022-0183
Salvia officinalis	garden sage	Lamiaceae	Mediterranean Region	SE	2022-0137
Salvia officinalis 'Purpurea'	purple sage	Lamiaceae	Garden Origin	SE	2022-0138
Sambucus racemosa	red elderberry	Adoxaceae	Eurasia, N Amer	SD	2022-0123
Sanguinaria canadensis	bloodroot	Papaveraceae	ENA	HD	2022-0139
Santolina chamaecyparissus	lavender cotton	Asteraceae	W&C Mediterranean	SE	2022-0197
Sarcococca hookeriana var. humilis [Fragrant Valley]	dwarf sweet box	Buxaceae	Garden Origin	SE	2022-0110
Scabiosa columbaria [Flutter Rose Pink]	dwarf pincushion flower	Caprifoliaceae	Garden Origin	HD	2022-0119
Scabiosa 'Vivid Violet'	pincushion flower	Caprifoliaceae	Garden Origin	HD	2022-0120
Sedum album 'Coral Carpet'	worm grass	Crassulaceae	Garden Origin	HE	2022-0217
Sedum 'Thunderhead'	stonecrop	Crassulaceae	Garden Origin	HD	2022-0121
Silene asterias	campion, catchfly	Caryophyllaceae	Balkan Mts	HD	2022-0012
Sinopodophyllum hexandrum	Himalayan mayapple	Berberidaceae	W China & Himalayas	HD	2022-0083
Skimmia japonica 'Rubella'	Japanese skimmia	Rutaceae	Garden Origin	SE	2022-0111
Smallanthus uvedalia	hairy leafcup	Asteraceae	C&E USA	HD	2022-0185
Sorbaria sorbifolia	false spirea	Rosaceae	E Asia, Mongolia	SD	2022-0039
Symphoricarpos albus	snowberry	Caprifoliaceae	N Amer	SD	2022-0127
Tanacetum parthenium	feverfew, matricaria	Asteraceae	SE Europe to Caucasus	HD	2022-0140
Thymus neiceffii	juniper leaf thyme	Lamiaceae	Asia Minor	HE	2022-0219
Thymus praecox 'Purple Carpet'	creeping thyme	Lamiaceae	Garden Origin	HE	2022-0141
Thymus vulgaris	common thyme	Lamiaceae	W Mediterranean	SE	2022-0142
Tricyrtis 'Taipei Silk'	toadlily	Liliaceae	Garden Origin	HD	2022-0122
Vaccinium parvifolium	red huckleberry	Ericaceae	WNA	SD	2022-0040
Veratrum viride	false hellebore	Melanthiaceae	Canada & USA	HD	2022-0087
Veronica ochracea 'James Stirling'	ochre whipcord hebe	Plantaginaceae	Garden Origin	SE	2022-0089
Veronica peduncularis 'Georgia Blue'	speedwell	Plantaginaceae	Garden Origin	HD	2022-0220
Veronica 'Youngii'		Plantaginaceae	Garden Origin	SE	2022-0088

Species at Risk in the Living Collections

Below are globally listed species at risk in VanDusen's living collections. These include species, subspecies and varieties listed as imperiled, critically endangered, endangered, threatened or vulnerable as listed by the **IUCN (International Union for the Conservation of Nature) Red List of Endangered Species** and other red lists.

SPECIES AT RISK - GLOBALLY LISTED				
SPECIES AT RISK	Common name	Family	Nativity	Conservation Status
<i>Abeliophyllum distichum</i>	white forsythia	OLEACEAE	Korea	Endangered
<i>Abies koreana</i>	Korean fir	PINACEAE	South Korea	Endangered
<i>Abies pinsapo</i>	Spanish fir	PINACEAE	S Spain, N Morocco	Endangered
<i>Abies recurvata</i>	Min fir	PINACEAE	China (Gansu, Henan, Shaanxi)	Vulnerable
<i>Abies recurvata</i> var. <i>ernestii</i>	Min fir	PINACEAE	C&W China	Vulnerable
<i>Acer griseum</i>	paperbark maple	SAPINDACEAE	C China	Endangered
<i>Acer pycnanthum</i>	maple	SAPINDACEAE	Japan	Vulnerable
<i>Acer tsinglingense</i>	maple	SAPINDACEAE	China (Gansu, Shaanxi), Eastern North America	Vulnerable
<i>Agastache rupestris</i>	threadleaf giant hyssop	LAMIACEAE	SW USA (Arizona & New Mexico)	Vulnerable
<i>Amsonia orientalis</i>	blue star	APOCYNACEAE	Greece & Turkey	Critically Endangered
<i>Anthemis sancti-johannis</i>	St John's chamomile	ASTERACEAE	Bulgaria	Endangered
<i>Aquilegia laramiensis</i>	Laramie columbine	RANUNCULACEAE	USA (Wyoming)	Imperilled
<i>Arabis ferdinandi-coburgi</i>	rockcress	BRASSICACEAE	Bulgaria	Endangered
<i>Araucaria araucana</i>	monkey puzzle, pehuén	ARAUCARIACEAE	SW Argentina & Chile	Endangered
<i>Arctostaphylos densiflora</i>	Vine Hill manzanita	ERICACEAE	USA (California)	Threatened
<i>Armeria pseudarmeria</i>	false sea thrift, pinkball thrift	PLUMBAGINACEAE	Portugal	Endangered
<i>Arum purpureospathum</i>		ARACEAE	Greece (Crete)	Vulnerable
<i>Austrocedrus chilensis</i>	Chilean cedar	CUPRESSACEAE	Argentina & Chile	Lower Risk/Near Threatened
<i>Berberidopsis corallina</i>	coral plant, michay rojo	BERBERIDOPSISACEAE	Chile	Endangered
<i>Berberis candidula</i>	paleleaf barberry	BERBERIDACEAE	China (W Hubei)	Vulnerable
<i>Brugmansia suaveolens</i>	angel's trumpet	SOLANACEAE	SE Brazil	Extinct in the wild
<i>Calycanthus occidentalis</i>	western sweet shrub	CALYCANTHACEAE	W USA (Calif)	Vulnerable
<i>Campanula autraniana</i>	bellflower	CAMPANULACEAE	W Caucasus	Endangered
<i>Carpenteria californica</i>	tree anemone	HYDRANGEACEAE	USA (California)	Critically Imperilled
<i>Castanea dentata</i>	American chestnut	FAGACEAE	E USA	Endangered
<i>Catalpa bignonioides</i>	Southern catalpa	BIGNONIACEAE	SE USA	Vulnerable
<i>Cathaya argyrophylla</i>	yin shan	PINACEAE	S China	Vulnerable
<i>Cedrus brevifolia</i>	Cyprus cedar	PINACEAE	Cyprus	Vulnerable

SPECIES AT RISK	Common name	Family	Nativity	Conservation Status
<i>Cedrus libani</i>	cedar of Lebanon	PINACEAE	Mts of Lebanon & Turkey	Vulnerable
<i>Cryptomeria japonica</i>	Japanese cedar	CUPRESSACEAE	S China & Japan	Threatened
<i>Cupressus bakeri</i>	Baker or Modoc cypress	CUPRESSACEAE	USA (California)	Vulnerable
<i>Cupressus cashmeriana</i>	Kashmir cypress	CUPRESSACEAE	Kashmir & Tibet	Vulnerable
<i>Cypripedium arietinum</i>	ram's head	ORCHIDACEAE	NE North America	Vulnerable
<i>Cypripedium formosanum</i>	lady's-slipper orchid	ORCHIDACEAE	Taiwan	Endangered
<i>Cypripedium franchetii</i>	lady's-slipper orchid	ORCHIDACEAE	China	Endangered
<i>Cypripedium henryi</i>	lady's-slipper orchid	ORCHIDACEAE	S China	Vulnerable
<i>Cypripedium japonicum</i>	lady's-slipper orchid	ORCHIDACEAE	China & Japan	Endangered
<i>Cypripedium passerinum</i>	northern lady's-slipper	ORCHIDACEAE	N North America	Vulnerable
<i>Davidia involucrata</i> var. <i>vilmoriniana</i>	handkerchief tree	CORNACEAE	W China	Vulnerable
<i>Deinanthus caerulea</i>	false hydrangea	HYDRANGEACEAE	China	Threatened
<i>Dionaea muscipula</i>	Venus flytrap	DROSERACEAE	SE USA (N & S Carolina)	Vulnerable
<i>Dipteronia sinensis</i>		SAPINDACEAE	China (Hubei & Sichuan)	Lower Risk/Near Threatened
<i>Dracaena draco</i>	dragon tree	ASPARAGACEAE	Canary Islands	Endangered
<i>Echium pininana</i>	tower-of-jewels	BORAGINACEAE	Spain (Canary Is)	Endangered
<i>Epimedium chlorandrum</i>	barrenwort	BERBERIDACEAE	China (Sichuan)	Vulnerable
<i>Erigeron flettii</i>	fleabane	ASTERACEAE	NW USA	Vulnerable
<i>Eryngium variifolium</i>	Moroccan sea holly	APIACEAE	Morocco (Atlas Mts)	Vulnerable
<i>Erythronium tuolumnense</i>	yellow fawn lily	LILIACEAE	USA (C California)	Imperilled
<i>Eucalyptus aggregata</i>	black gum	MYRTACEAE	Austrl (NSW, Vic & Tas)	Endangered
<i>Eucalyptus macarthurii</i>	Camden woollybutt	MYRTACEAE	Australia (NSW)	Endangered
<i>Eucryphia glutinosa</i>	brushbush, nirrhe	CUNONIACEAE	Chile	Lower Risk/Near Threatened
<i>Fitzroya cupressoides</i>	alerce	CUPRESSACEAE	Argentina & S Chile	Endangered
<i>Fothergilla gardenii</i>	witch alder	HAMAMELIDACEAE	E USA (Virginia to Georgia)	Vulnerable.
<i>Franklinia alatamaha</i>	Franklin tree	THEACEAE	USA (Georgia)	Extinct in the wild
<i>Fraxinus americana</i>	white ash	OLEACEAE	Eastern North America	Critically Endangered
<i>Fraxinus nigra</i>	black ash	OLEACEAE	Man to NS; C&E USA	Critically Endangered
<i>Fraxinus pennsylvanica</i>	green ash, red ash	OLEACEAE	Eastern North America	Critically Endangered
<i>Fraxinus quadrangulata</i>	blue ash	OLEACEAE	E USA	Critically Endangered
<i>Galanthus ikariae</i>	snowdrop	AMARYLLIDACEAE	Greece (E Aegean Is.)	Vulnerable
<i>Gentiana kurroo</i>	gentian	GENTIANACEAE	NW Himalayas & Kashmir	Critically Endangered
<i>Gentiana setigera</i>	gentian	GENTIANACEAE	W USA (Calif & Ore)	Imperilled

SPECIES AT RISK	Common name	Family	Nativity	Conservation Status
<i>Geranium dalmaticum</i>	Dalmatian cranesbill	GERANIACEAE	Croatia (Dalmatia)	Critically Endangered
<i>Geranium maderense</i>	cranesbill	GERANIACEAE	Portugal (Madeira)	Critically Endangered
<i>Ginkgo biloba</i>	maidenhair tree	GINKGOACEAE	China (Anhui & Jiangsu)	Endangered
<i>Gleditsia vestita</i>	honey locust	FABACEAE	China	Critically Endangered
<i>Glyptostrobus pensilis</i>	Chinese swamp cypress	CUPRESSACEAE	SE China to NE Vietnam	Critically Endangered
<i>Gymnocladus dioica</i>	Kentucky coffeetree	FABACEAE	Eastern North America	Threatened
<i>Haworthia mirabilis</i>		XANTHORRHOACEAE	S Africa	Critically Endangered
<i>Heptacodium miconioides</i>	seven sons plant	CAPRIFOLIACEAE	E China	Vulnerable
<i>Hosta hypoleuca</i>		ASPARAGACEAE	Japan	Endangered
<i>Hydrastis canadensis</i>	golden seal	RANUNCULACEAE	Eastern North America	Vulnerable.
<i>Ilex zhejiangensis</i>		AQUIFOLIACEAE	China (Zhejiang) & Myan	Threatened
<i>Impatiens omeiana</i>	perennial impatiens	BALSAMINACEAE	China	Endangered
<i>Iris spuria</i>	butterfly iris	IRIDACEAE	Europe N Africa, SW Asia	Vulnerable
<i>Jacaranda mimosifolia</i>	jacaranda	BIGNONIACEAE	NW Argentina & Bolivia	Vulnerable
<i>Kalanchoe daigremontiana</i>	devil's backbone, Mexican hat plant	CRASSULACEAE	SW Madagascar	Endangered
<i>Kalmiopsis leachiana</i>		ERICACEAE	W USA (Oregon's Siskiyou Mts)	Vulnerable
<i>Kirengeshoma palmata</i>	yellow waxbells	HYDRANGEACEAE	Japan & Korea	Endangered
<i>Kolkwitzia amabilis</i>	beautybush	CAPRIFOLIACEAE	W China (Hubei)	Vulnerable
<i>Lewisia tweedyi</i>	Tweedy's lewisia	PORTULACACEAE	Western North America (BC & Wash)	Vulnerable
<i>Liatris spicata</i>	blazingstar, gayfeather	ASTERACEAE	Eastern North America	Threatened
<i>Lilium tsingtauense</i>	lily	LILIACEAE	NE China & Korea	Vulnerable
<i>Lomatium grayi</i>	milfoil lomatium	APIACEAE	Western North America	Threatened
<i>Lysionotus pauciflorus</i> var. <i>ikedae</i>		GESNERIACEAE	S Taiwan (Lanyu Island)	Endangered
<i>Magnolia acuminata</i>	cucumber tree	MAGNOLIACEAE	Eastern North America	Endangered
<i>Magnolia dawsoniana</i>	Dawson's magnolia	MAGNOLIACEAE	China (W Sichuan)	Endangered
<i>Magnolia lotungensis</i>		MAGNOLIACEAE	SE China & Tropics	Endangered
<i>Magnolia macrophylla</i> var. <i>ashei</i>	Ashe's magnolia	MAGNOLIACEAE	SE USA (Florida)	Endangered
<i>Magnolia officinalis</i> var. <i>biloba</i>		MAGNOLIACEAE	E China	Lower Risk/Near Threatened
<i>Magnolia sargentiana</i>	Sargent's magnolia	MAGNOLIACEAE	W China (W Sichuan & N Yunnan)	Vulnerable

SPECIES AT RISK	Common name	Family	Nativity	Conservation Status
<i>Magnolia stellata</i>	star magnolia	MAGNOLIACEAE	C Japan	Endangered
<i>Magnolia wilsonii</i>	Wilson's magnolia	MAGNOLIACEAE	SW China	Lower Risk/Near Threatened
<i>Marshallia grandiflora</i>	Barbara's buttons	ASTERACEAE	CE USA	Vulnerable
<i>Menyanthes trifoliata</i>	buckbean, marsh trefoil	MENYANTHACEAE	Circumboreal	Endangered
<i>Metasequoia glyptostroboides</i>	dawn redwood	CUPRESSACEAE	China (Hubei & Sichuan)	Endangered
<i>Microbiota decussata</i>	Russian cypress	CUPRESSACEAE	E Siberia	Lower Risk/Least Concern
<i>Neviusia alabamensis</i>	snow wreath	ROSACEAE	SE USA	Imperilled
<i>Papaver rupifragum</i>	Spanish poppy	PAPAVERACEAE	Spain	Endangered
<i>Parodia ottonis</i>	cactus	CACTACEAE	South America	Vulnerable
<i>Paxistima canbyi</i>	cliff green	CELASTRACEAE	E USA	Imperilled
<i>Peltoboykinia watanabei</i>		SAXIFRAGACEAE	Japan	Vulnerable
<i>Penstemon hallii</i>	Hall's penstemon	PLANTAGINACEAE	USA (Colorado)	Vulnerable
<i>Persea americana</i>	avocado	LAURACEAE	Mexico & Guatemala	Endangered
<i>Petrophytum cinerascens</i>	rock spiraea	ROSACEAE	USA (Washington)	Critically Imperilled
<i>Petrophytum hendersonii</i>	Henderson's rock spiraea	ROSACEAE	USA (Washington)	Vulnerable
<i>Physaria alpina</i>	bladder pod	BRASSICACEAE	USA (Idaho, Montana & Wyoming)	Imperilled
<i>Picea brachytyla</i>	sargent spruce	PINACEAE	W&C China	Vulnerable
<i>Picea breweriana</i>	Brewer's spruce	PINACEAE	USA (California & Oregon)	Vulnerable
<i>Picea chihuahuana</i>	Chihuahuan spruce	PINACEAE	Mex (Chihuahua & Durango)	Endangered
<i>Picea koyamae</i>	Koyama's spruce	PINACEAE	Japan (C Honshu)	Critically Endangered
<i>Picea morrisonicola</i>	Taiwan spruce	PINACEAE	Taiwan	Vulnerable
<i>Picea omorika</i>	Serbian spruce	PINACEAE	BosHerz & Serb (Drina river valley)	Endangered
<i>Picea purpurea</i>	purple-coned spruce	PINACEAE	China (Gansu & Sichuan)	Lower Risk/Least Concern
<i>Picea torano</i>	tigertail spruce	PINACEAE	S Japan	Vulnerable
<i>Pinus aristata</i>	Rocky Mountain bristlecone pine	PINACEAE	W USA (Colo, NMex & Ariz)	Lower Risk/Near Threatened
<i>Pinus bungeana</i>	lacebark pine	PINACEAE	C&N China	Endangered
<i>Pinus coulteri</i>	Coulter's pine	PINACEAE	USA (California) & NW Mexico	Lower Risk/Near Threatened
<i>Pinus muricata</i>	bishop pine	PINACEAE	USA & Mexico (Calif to N Baja)	Vulnerable
<i>Pinus palustris</i>	longleaf pine	PINACEAE	E USA (SE Virginia to Texas)	Endangered
<i>Pinus radiata</i>	Monterey pine	PINACEAE	USA (California)	Endangered
<i>Podocarpus salignus</i>	Mañío or Willow-leaf Podocarp	PODOCARPACEAE	Southern Chile	Vulnerable

SPECIES AT RISK	Common name	Family	Nativity	Conservation Status
<i>Polystichum rigens</i>	Rigid fern, prickly holly fern	DRYOPTERIDACEAE	Japan	Vulnerable
<i>Primula auricula</i>	auricula	PRIMULACEAE	Europe	Endangered
<i>Primula yuparensis</i>		PRIMULACEAE	Japan	Endangered
<i>Pseudolarix amabilis</i>	golden larch	PINACEAE	E China	Vulnerable
<i>Ptelea trifoliata</i>	hop tree	RUTACEAE	Eastern N America	Threatened
<i>Pterostyrax psilophylla</i>	epaulette tree	STYRACACEAE	China	Vulnerable
<i>Reseda complicata</i>	mignonette	RESEDACEAE	S Spain	Vulnerable
<i>Rhododendron aberconwayi</i>		ERICACEAE	China (Guiz., Yunnan)	Vulnerable
<i>Rhododendron adenosum</i> Kuluense Group		ERICACEAE	China (SW Sichuan)	Endangered
<i>Rhododendron albertsenianum</i>		ERICACEAE	China (Yunnan)	Vulnerable
<i>Rhododendron amesiae</i>		ERICACEAE	China (Sichuan)	Critically Endangered
<i>Rhododendron argyrophyllum</i> subsp. <i>nankingense</i>		ERICACEAE	China (Guizhou)	Vulnerable
<i>Rhododendron auritum</i>		ERICACEAE	SE Tibet	Critically Endangered
<i>Rhododendron balfourianum</i>		ERICACEAE	China (Sichuan & Yunnan)	Vulnerable
<i>Rhododendron barbatum</i>		ERICACEAE	Himalayas (China, Bhut, Nep, Sik)	Threatened
<i>Rhododendron beanianum</i>		ERICACEAE	India (Assam) & Myanmar	Vulnerable
<i>Rhododendron bracteatum</i>		ERICACEAE	China (Sichuan)	Vulnerable
<i>Rhododendron caesium</i>		ERICACEAE	China (Yunnan)	Critically Endangered
<i>Rhododendron callimorphum</i>		ERICACEAE	China (Yunnan)	Vulnerable
<i>Rhododendron chamaethomsonii</i> var. <i>chamaethauma</i>		ERICACEAE	China (Tibet)	Vulnerable
<i>Rhododendron charitopes</i>		ERICACEAE	Myanmar & China (Yunnan)	Vulnerable
<i>Rhododendron citriniflorum</i> var. <i>horaeum</i>		ERICACEAE	China (Yunnan), Tibet	Vulnerable
<i>Rhododendron cyanocarpum</i>		ERICACEAE	China (Yunnan)	Vulnerable
<i>Rhododendron dichroanthum</i> subsp. <i>apodectum</i>		ERICACEAE	Myanmar & China (Yunnan)	Vulnerable
<i>Rhododendron eclecticum</i>		ERICACEAE	Myan, China (Sichuan & Yunnan), Tibet	Vulnerable
<i>Rhododendron erosum</i>		ERICACEAE	SE Tibet	Vulnerable
<i>Rhododendron euryisiphon</i>		ERICACEAE	SE Tibet	Endangered
<i>Rhododendron flavidum</i>		ERICACEAE	China (Sichuan)	Vulnerable
<i>Rhododendron fletcherianum</i>		ERICACEAE	China (Tibet)	Endangered
<i>Rhododendron haematodes</i>		ERICACEAE	China (Yunnan)	Vulnerable
<i>Rhododendron hanceanum</i>		ERICACEAE	China (Sichuan)	Vulnerable
<i>Rhododendron hemitrichotum</i>		ERICACEAE	China (Sich. & Yunn.)	Vulnerable

SPECIES AT RISK	Common name	Family	Nativity	Conservation Status
<i>Rhododendron hemsleyanum</i>		ERICACEAE	China (Omei Shan)	Critically Endangered
<i>Rhododendron hunnewellianum</i>		ERICACEAE	China (Gansu & W Sichuan)	Vulnerable
<i>Rhododendron insigne</i>		ERICACEAE	China (Sichuan)	Vulnerable
<i>Rhododendron lanatum</i>		ERICACEAE	Bhut, India (Sik, Assam) & China (Tibet)	Vulnerable
<i>Rhododendron luteiflorum</i>		ERICACEAE	N Myanmar	Vulnerable
<i>Rhododendron makinoi</i>	Makino rhododendron	ERICACEAE	Japan	Vulnerable
<i>Rhododendron mallotum</i>		ERICACEAE	Myanmar & China (Yunnan)	Endangered
<i>Rhododendron moupinense</i>	Moupin rhododendron	ERICACEAE	China (Guizhou & Sichuan)	Vulnerable
<i>Rhododendron myrtifolium</i>		ERICACEAE	Carpathians to Macedonia	Endangered
<i>Rhododendron nakaharae</i>	prostrate evergreen azalea	ERICACEAE	Taiwan	Endangered
<i>Rhododendron nitidulum</i> var. <i>omeiense</i>		ERICACEAE	China (Sichuan)	Endangered
<i>Rhododendron niveum</i>		ERICACEAE	Bhutan & India (Sikkim)	Vulnerable
<i>Rhododendron orbiculare</i>		ERICACEAE	China (Guangxi, Hunan & Sichuan)	Vulnerable
<i>Rhododendron pachysanthum</i>		ERICACEAE	Taiwan	Vulnerable
<i>Rhododendron pemakoense</i>		ERICACEAE	China (SE Tibet)	Vulnerable
<i>Rhododendron pemakoense</i> Patulum Group		ERICACEAE	N India (AP) & Tibet	Vulnerable
<i>Rhododendron pocophorum</i>		ERICACEAE	N India (AP), China (Yunnan), Tibet	Vulnerable
<i>Rhododendron pseudochrysanthum</i>		ERICACEAE	Taiwan	Vulnerable
<i>Rhododendron recurvoides</i>		ERICACEAE	N Myanmar	Vulnerable
<i>Rhododendron rex</i>		ERICACEAE	China (Sichuan & Yunnan)	Vulnerable
<i>Rhododendron rex</i> subsp. <i>fictolacteum</i>		ERICACEAE	Myanmar, SE China	Vulnerable
<i>Rhododendron ririei</i>	great bell rhododendron	ERICACEAE	China (Guizhou & Sichuan)	Vulnerable
<i>Rhododendron smirnowii</i>		ERICACEAE	Russia & Turkey	Vulnerable
<i>Rhododendron sperabile</i>		ERICACEAE	NE Myanmar	Vulnerable
<i>Rhododendron sperabile</i> var. <i>weihsiense</i>		ERICACEAE	China (Yunnan)	Vulnerable
<i>Rhododendron subansiriense</i>		ERICACEAE	NE India (AP)	Critically Endangered
<i>Rhododendron thayerianum</i>		ERICACEAE	China (W Sichuan)	Vulnerable
<i>Rhododendron trichanthum</i>		ERICACEAE	China (Sichuan)	Vulnerable
<i>Rhododendron vaseyi</i>	pinkshell azalea	ERICACEAE	USA (North Carolina)	Vulnerable
<i>Rhododendron velleum</i>		ERICACEAE	China (Qinghai), Tibet	Endangered

SPECIES AT RISK	Common name	Family	Nativity	Conservation Status
<i>Rhododendron venator</i>		ERICACEAE	SE Tibet	Vulnerable
<i>Rhododendron viscistylum</i>		ERICACEAE	Japan (S Kyushyu Is)	Endangered
<i>Rhododendron wardii</i> var. <i>puralbum</i>		ERICACEAE	China (Sich, Yunn), Tibet	Endangered
<i>Rhododendron wasonii</i>		ERICACEAE	China (W Sichuan)	Vulnerable
<i>Rhododendron williamsianum</i>		ERICACEAE	China (Guiz & Sich)	Vulnerable
<i>Rhododendron yedoense</i> var. <i>poukhanense</i>	Korean azalea	ERICACEAE	Japan & S Korea	Endangered
<i>Rhododendron yungningense</i>		ERICACEAE	China (Sichuan & Yunnan)	Vulnerable
<i>Rhododendron zaleucum</i>		ERICACEAE	Myanmar, China (Guizhou & Yunnan)	Vulnerable
<i>Sagittaria sagittifolia</i>	Old World arrowhead	ALISMATACEAE	Eurasia	Threatened
<i>Salix magnifica</i>	magnificent willow	SALICACEAE	China (Sichuan)	Vulnerable
<i>Salix nakamura</i> var. <i>yezoalpina</i>	willow	SALICACEAE	Japan (Hokkaido)	Endangered
<i>Sanguisorba obtusa</i>	Japanese burnet	ROSACEAE	Japan	Endangered
<i>Sarracenia alata</i>	pale trumpet	SARRACENIACEAE	SE USA	Lower Risk/Near Threatened
<i>Sarracenia flava</i>	yellow pitcher plant	SARRACENIACEAE	SE USA	Lower Risk/Least Concern
<i>Sarracenia leucophylla</i>	white trumpet	SARRACENIACEAE	SE USA	Vulnerable
<i>Sarracenia rubra</i> subsp. <i>gulfensis</i>	red or sweet pitcher plant	SARRACENIACEAE	SE USA (Florida)	Endangered
<i>Sarracenia rubra</i> subsp. <i>wherryi</i>	red or sweet pitcher plant	SARRACENIACEAE	E USA	Endangered
<i>Saruma henryi</i>	upright wild ginger	ARISTOLOCHIACEAE	E Asia	Endangered
<i>Saxegothea conspicua</i>	Prince Albert's yew, mañio hembra	PODOCARPACEAE	Chile & Argentina	Lower Risk/Near Threatened
<i>Schizachyrium scoparium</i>	little bluestem	POACEAE	North America	Critically Imperilled
<i>Sequoia sempervirens</i>	coast redwood	CUPRESSACEAE	W USA	Endangered
<i>Sequoiadendron giganteum</i>	giant sequoia	CUPRESSACEAE	USA (California)	Endangered
<i>Sidalcea hendersonii</i>	Henderson's checker mallow	MALVACEAE	W North America	Vulnerable.
<i>Sinojackia xylocarpa</i>	jacktree	STYRACACEAE	E China	Threatened
<i>Soldanella villosa</i>	Pyrenean alpencllock	PRIMULACEAE	Pyrenees	Vulnerable
<i>Sorbus arranensis</i>	Arran or Scottish whitebeam	ROSACEAE	Scotland (Isle of Arran)	Endangered
<i>Sorbus aucuparia</i> subsp. <i>maderensis</i>	Madeira mountain ash	ROSACEAE	Portugal (Mts of Madeira)	Critically Endangered
<i>Sorbus bristolensis</i>	mountain ash	ROSACEAE	SW England (Avon Gorge)	Endangered
<i>Sorbus dacica</i>	Romanian mtn ash	ROSACEAE	Romania	Rare
<i>Sorbus latifolia</i>	Fontainebleau mtn ash	ROSACEAE	Europe	Vulnerable
<i>Sorbus pseudofennica</i>	Arran cut-leaved whitebeam,	ROSACEAE	Scotland (Isle of Arran)	Critically Endangered
<i>Stylophorum diphyllum</i>	celandine poppy	PAPAVERACEAE	Eastern N America	Endangered

SPECIES AT RISK	Common name	Family	Nativity	Conservation Status
<i>Taiwania cryptomerioides</i>	coffin tree	CUPRESSACEAE	China, Myanmar & Taiwan	Vulnerable
<i>Tanacetum cinerariifolium</i>	Dalmatian pyrethrum	ASTERACEAE	Albania & Balkans	Vulnerable
<i>Taxus brevifolia</i>	Pacific or western yew	TAXACEAE	Western North America	Lower Risk/Near Threatened
<i>Taxus cuspidata</i>	Japanese yew	TAXACEAE	N China, Japan & Korea	Threatened
<i>Thuja koraiensis</i>	Korean arborvitae	CUPRESSACEAE	Korea & NE China	Vulnerable
<i>Tilia amurensis</i>	linden	MALVACEAE	NE China & Korea	Threatened
<i>Titanotrichum oldhamii</i>		GESNERIACEAE	S China, Taiwan & Okinawa	Critically Endangered
<i>Tsuga forrestii</i>	Chinese hemlock	PINACEAE	SW China	Vulnerable
<i>Typha minima</i>	dwarf cattail	TYPHACEAE	Eurasia	Endangered
<i>Verbascum roripifolium</i>	mullein	SCROPHULARIACEAE	S Bulgaria	Vulnerable
<i>Viburnum bracteatum</i>	bracted viburnum	ADOXACEAE	SE USA (Georgia, Alabama, Tennessee)	Critically Imperilled
<i>Viburnum carlesii</i>	Korean spice viburnum	ADOXACEAE	Korea & Japan (Tsushima)	Endangered
<i>Viola pedata</i>	birdsfoot violet	VIOLACEAE	Eastern North America	Threatened
<i>Wollemia nobilis</i>	Wollemi pine	ARAUCARIACEAE	Australia (NSW, Blue Mts)	Critically Endangered
<i>Woodsia obtusa</i>	blunt-lobed cliff fern	WOODSIACEAE	Eastern North America	Threatened
<i>Woodwardia areolata</i>	narrow-fronded chain f., netted chain f.	BLECHNACEAE	Eastern North America	Threatened and Endangered
<i>Yucca glauca</i>	soapweed, lamparas de Dios	ASPARAGACEAE	Central N America	Threatened

Scientific Research in the Garden

From 2018 to 2022, the following scientific studies were conducted at VanDusen Botanical Garden or supported by the Garden through the contribution of germplasm or data from the living collections.

Ash Dieback and Emerald Ash Borer presence on non-*Fraxinus* hosts. International Plant Sentinel Network (IPSN), Botanic Gardens Conservation International. Multi-institutional survey of *Chionanthus* spp. and/or *Phillyrea* spp. in living collections to detect Ash Dieback (*Hymenoscyphus fraxineus*) and Emerald Ash Borer (*Agrilus plannipennis*) on non-*Fraxinus* hosts. These plant pests are a serious threat to global ash populations and there is an increased risk of spread through non-*Fraxinus* hosts. Research link: <https://www.bgci.org/our-work/networks/ipsn/>

Canadian National Collection of Insects, Arachnids and Nematodes at Agriculture and Agri-Food Canada (AAFC). Aphid research and phylogenetics. Cho-Kai Chan and Bryan Brunet, Research Scientist, Ottawa Research and Development Centre, Agriculture and Agri-Food Canada, Ottawa. Aphid collections made at VanDusen throughout the year for the national collection and associated plant species noted for each collection.

Code Red online photography exhibit on the Earth's current mass species extinctions. Melissa Lynn Photography. Available online at: <https://melissalynnphoto.com/portfolios/code-red>

The Changing Role of Ornamental Horticulture in Alien Plant Invasions. Van Kleunen, Mark *et al.* Biological Reviews. Cambridge Philosophical Society (2018). 93(3):1421-1437. VanDusen Botanical Garden contributed plant collections data to this study. Abstract link: <https://onlinelibrary.wiley.com/doi/abs/10.1111/brv.12402>

The Chilean Garden. An exhibit by Victor Ballesteros. Supported by the BC Arts Council 2019 Arts Award, the artist is developing an exhibit on VanDusen's Chilean Garden, consisting of ultra-high definition video projections to be exhibited in a local gallery or museum (to be announced). The main subject is a collection of fifty native Chilean plants growing in VanDusen's collections. As a visiting artist, Victor has conducted research in the garden's library and archives, consulted with the Curator and head gardener of the Chilean Garden, and produced film, photographs and soundscape recordings in the garden. This visual investigation explores connections among the disciplines of plant collections, art history, botany, ethnobotany and the history of exhibitions and museum studies.

Conservation Gap Analysis of Native Magnolias of the U.S. and Canada. Global Conservation Consortium for Magnolia. Linsky, J. et al. 2022. VanDusen Botanical Garden contributed its *Magnolia* collections data to this study. Publication available at: <https://www.globalconservationconsortia.org/resources/conservation-gap-analysis-of-native-magnolias-of-the-u-s-and-canada/>

Conservation Gap Analysis of U.S. Native Oaks. Beckman, Emily *et al.* 2019. The Morton Arboretum. VanDusen Botanical Garden contributed its *Quercus* collections data to this study. Publication available here: <https://www.mortonarb.org/files/conservation-gap-analysis-of-native-US-oaks.pdf>

Decoupled macroevolution of metabolic and morphological traits in vascular plants. Barbara M. Neto-Bradley, MSc. Candidate. Department of Botany, University of British Columbia. Photosynthesis rates were measured and compared among plant species at VanDusen to shed light on the evolution of photosynthesis in the plant kingdom.

Environment and Climate Change Canada's Climate Change DNA reference library for plants. Lisa Yeung, FSWEF Forensic Analyst Assistant, Science and Technology Branch, Environment and Climate Change Canada, North Vancouver. VanDusen contributed germplasm for DNA sequencing from multiple species from the living collections in contribution to Canada's Climate Change DNA reference library. This repository of DNA represents the major evolutionary groups of plants on Earth and can be used to study the impacts of climate change on plant species.

European fire ant (*Myrmica rubra*) research program (2014-2020). Dr. Robert Higgins, Entomologist, Thompson Rivers University. Dr. Higgins has conducted several research studies on European fire ants and control of this invasive species since 2013, in collaboration with VanDusen staff and the Invasive Species Council of Metro Vancouver.

Leaf thermal and heat tolerance variation among vascular plant families. MSc. Thesis research by Nicole Bison, Botany Dept., University of British Columbia. Investigated the use of field spectroscopy for measuring leaf thermal and heat tolerance traits, and whether phylogenetical signals in these traits can be detected among species from different families.

Hummingbird Monitoring Citizen Science Project. Vancouver Avian Research Centre (VARC) and VanDusen Botanical Garden. From April to September, 2019 Vancouver Botanical Garden Association (VBGA) education staff worked with VARC, giving VanDusen members a chance to contribute to citizen science and collect important data on our native hummingbirds. www.birdvancouver.com/workshop_banding_intro.html

Novel *Neidium* Pfitzer species from western Canada based upon morphology and plastid DNA sequences. Hamilton, Paul. B, Amanda M. Savioe, Cynthia M. Sayre, Oliver Skibbe, Jonas Zimmerman & Roger Bull. 2019. *Phytotaxa* 419 (1):039-062. Five new species of diatoms (microscopic, unicellular algae) were discovered in VanDusen's Livingstone Lake and are described in this publication. One species is named for VanDusen, *Neidium vandusenense*. This work was a collaboration between the Canadian Museum of Nature and curatorial staff at VanDusen Botanical Garden.

Phylogenetic history of vascular plant metabolism revealed using a macroevolutionary common garden. Neto-Bradley, Barbara M., Muir Christopher D., Whitton Jeannette and Pennel Matthew W. 2021. *Proceedings of the Royal Academy of Biological Sciences* 288:20210605

Potentially Problematic Common Names. Fry, J.M. 2022. *Public Garden Magazine* 37:13-13. A North American multi-institutional investigation into potentially racist, xenophobic and culturally inappropriate terms in plant nomenclature.

Red List of *Nothofagus*. Balwin, Harry, Megan Barstow & Malin Rivers. 2018. BGCI. VanDusen Botanical Garden contributed its *ex situ* *Nothofagus* plant collections data to this study. Publication available at: globaltrees.org/wp-content/uploads/2019/02/NothofagusMedRes.pdf

A Road Map for Bumble Bees to Nest Boxes (publication pending). Elana Varner, Kayla Mark, Hanna Jackson, Kendal Singelton. Dept. of Biological Sciences, Simon Fraser University. Bumble bees across North America have declined by 87%, largely due to habitat loss. Pollinator gardens provide important supplementary habitat but they lack a vital part of the conservation picture; nesting sites. Bumble bee nest boxes generally have low occupancy rates as queens have difficulty finding the small entrance opening. The researchers hypothesize a scent component (pheromone) added to nest boxes will help guide the queens to the nest box opening. 38 nest boxes were installed at VanDusen and Queen Elizabeth Park and monitored in 2019. Preliminary results revealed 28 bumble bee colonies in scented nest boxes versus 10 colonies in boxes without pheromones. A follow-up study is planned for 2020.

A Stimulated Interest in Growing your own (Chinese Herb Garden). Jacob Larmour, International College of Traditional Chinese Medicine. *Medicinal Root Magazine*, Summer 2018:19-22. VanDusen Botanical Garden curatorial staff worked with Jacob Larmour to develop and contribute seeds and plant labels to the International College of Traditional Chinese Medicine's Chinese herb Garden. www.medicinalrootsmagazine.com/uploads/6/9/2/2/692250/medicinalrootsmagazine_sum18.pdf

VanDusen Botanical Garden

5251 Oak Street, Vancouver, BC, V6M 4H1, Canada

www.vandusengarden.org or <http://vancouver.ca/parks-recreation-culture/vandusen-botanical-garden.aspx>

