



### Message from the State Coordinator

The Montana Department of Natural Resources & Conservation (DNRC) maintains records on the largest trees in the state. These trees are aptly called "Big Trees" as they represent specimen trees that have been catalogued as the largest representatives of their particular species discovered thus far.

Montana's forests are a delight for current and future generations. Our trees provide everything from wood products and medicines to life-giving oxygen, clean water and energy conservation. The Montana DNRC hosts this program in order to encourage the appreciation of Montana's forests and trees. Exploring our landscape for these big specimen trees can put you in touch with our natural resources heritage.

The DNRC would like to recognize our partners in this program. The U.S. Forest Service and its regional Rocky Mountain Research Station, the American Tree Farm System, and the American Forests organization are all valuable partners. The state's Register of Big Trees is a result of the work of many people's efforts over many years.

As there is no funding to support this program, its success is largely dependent on continued volunteer efforts of people such as you. Some of the records in the registry are older and the trees are due for re-measure. We welcome volunteer efforts to help re-certify these older champions. You can also add to the Register of Big Trees by filling out the nomination form for any champion caliber specimens you find.

If you are interested in learning more about the program please visit the Big Trees website at: <u>https://dnrc.mt.gov/Forestry/Forest-Management/</u> <u>montana-big-trees-program</u> or email me at <u>danrogers@mt.gov</u>.

Good luck in your search!

Dan Rogers Montana Big Trees Program Coordinator











# **Big Tree Program Notes**

"A Work in Progress" is a great way to think of the Montana Big Tree Register. As living entities, trees are always changing. A tree may earn a spot in the registry with strong growth or by being the first of its species submitted. A tree on the registry may fall out of the list due to limb loss, death, or discovery of a new champion. Publication of this registry represents a snapshot in time.

Champions are determined by points. Three dimensions of the tree are measured and points are calculated as follows: Circumference (inches) + Height (feet) +  $\frac{1}{4}$  Average Crown Spread (feet)= Total Points. In the event two or more trees of a species have a score within 15 points of each other they are considered co-champions. An asterisk (\*) appearing in the Scientific Name column of an entry indicates the co-champion status.

In addition to the point total for the species this register also lists the National Champion points total in parenthesis. So now, you can see how the Montana specimen measures up on the national scale. Montana's National Champion Big Trees are highlighted in the register.

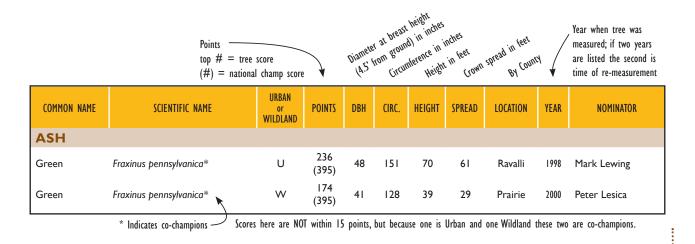


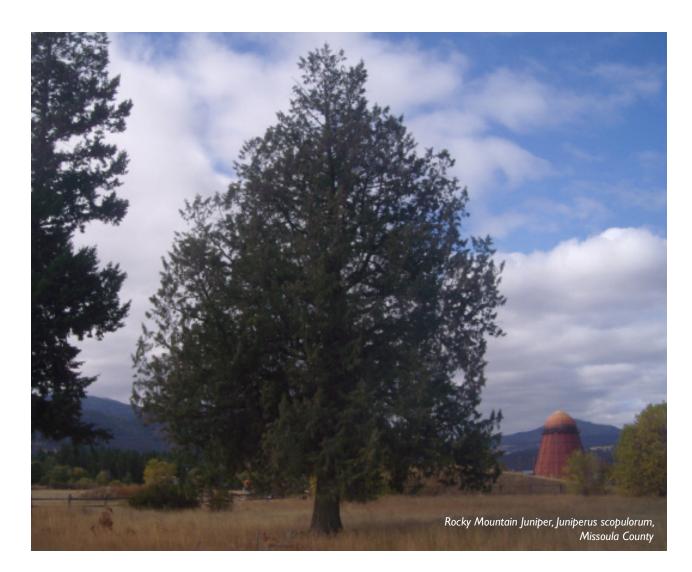
Montana's register of Big Trees includes a few subcategories. The largest distinction drawn is if a species is recognized as a Montana Native or a Non-Native species. You will notice in subsequent pages that the registry contains two separate lists based on this classification. Native trees are wild and grew naturally or spontaneously in the undisturbed forest vegetation before the arrival of Columbus or other Europeans. Non-native trees species have been brought into Montana.

Further, non-native trees may be recognized as being Naturalized. Naturalized trees represent non-native specimens that have been found self propagating or create viable seeds that have successfully germinated under normal conditions. Trees identified as Naturalized are designated in the registry by a  $\Delta$  symbol.

The third distinction made in the registry concerns the actual location and growing conditions of the tree. Each tree is designated as either Urban or Wildland. In some instances both a Wildland and Urban specimen are listed as co-champions of the species, even though the point totals do not fall within the stated 15 point rule. This is due to the recognition that in the arid and semi-arid West most trees occurring in a natural, wildland setting will not reach the sizes the same tree in a irrigated, fertilized, or otherwise human influenced, urban environment may reach.

### How to Read the Register





Montana Big Tree Progr	am - Nomination Form
TREE         Common name:         Scientific name:         Date measured:         Condition of tree:         Excellent         Good         Required Photo included?         Yes         No         Date Photo Taken:         Permission to Use Photo in Publications and/or on Website?         Yes         No         MEASUREMENTS (see instructions)         (A) Circumference at 4.5 ft. (in inches):         (B) Total height (in feet):         (C) Average crown spread (to nearest foot):	OWNER  Private, Owner's name: Address:  Public, Agency: National Forest/BLM Office: Ranger District/Admin. Unit:  NOMINATION Nominated by: Address: Verified by: Address:
Circumference (inches) + Height (feet) + <sup>1</sup> / <sub>4</sub> from above: A+B+(.25xC)= Total Points <b>Calculated TOTAL POINTS:</b>	Average Crown Spread (feet)= Total Points
LOCATION Setting: Wildland Urban County: Township, Range, Section: GPS coordinates, if available (see instructions):	<b>DIRECTIONS &amp; MAP</b> Give directions to the tree and, attach a photo- copy of a USGS Topo map with location marked. If a topo map is not available, sketch a map below showing the location of tree, road names, and prominent features (e.g., streams, trails, houses).
ADDITIONAL COMMENTS: (on condition, setting, history, or other) Mail this nomination form to: Montan MT DNRC Forestry Assistance Bureau, 2	

### HOW TO MEASURE A TREE FOR NOMINATION

(updated based on rules listed in The National Register of Big Trees 2000, page 3)

### **DEFINITION OF A TREE**

A tree is defined as a woody plant having one erect perennial stem or trunk at least  $9\frac{1}{2}$  inches in circumference (3 inches in diameter) at  $4\frac{1}{2}$  feet above the ground (breast height), a definitely formed crown of foliage, and a height of at least 13 feet. In contrast, shrubs are small woody plants, usually with several perennial stems branching at the base.

Trees included in the National Register of Big Trees include native or naturalized trees in the United States, including Alaska but not Hawaii. Hybrids and minor varieties are excluded from the National Register, although one is listed on the Montana Register. There are 826 eligible species and varieties: 747 native and 79 naturalized. To determine eligibility, American Forests uses Elbert L. Little Jr.'s Checklist of United States Trees (Native and Naturalized), published in 1979 as U.S. Department of Agriculture Agricultural Handbook 541.

\* Native tree species (also called indigenous) are wild and grew naturally or spontaneously in the undisturbed forest vegetation before the arrival of Columbus or other Europeans.

\* Introduced tree species have been brought into the United States. A naturalized tree is an introduced species that has become common and established itself as though wild, reproducing naturally and spreading. Species accepted as naturalized are designated in the Register by the symbol ( $\Delta$ ).

### MEASURING CIRCUMFERENCE

Measure circumference of the tree in inches at  $4\frac{1}{2}$  feet above the ground. If there is a fork at this point (at  $4\frac{1}{2}$  feet), measure the smallest circumference below the fork. If the tree branches below  $4\frac{1}{2}$  feet, measure the largest single stem at  $4\frac{1}{2}$  feet above the ground.

### **MEASURING TREE HEIGHT**

The height of the tree, measured to the nearest foot, is the vertical distance between two level parallel lines when one passes through the center of the base of the tree and another through the top-most point of the tree. If the tree leans, this top-most point may not be directly over the base of the tree. For this reason, you must stand out from the tree far enough so the top-most point can be seen from at least two directions. Tree heights can be measured with instruments such as a clinometer, Abney hand level, hypsometer, survey laser, or a transit. If you have trouble with this measurement, ask a local forester or surveyor for help.

### **MEASURING THE CROWN SPREAD**

Determine the widest and narrowest spread of the crown that line up through the trunk of the tree. At the widest point, hold the top of a plumb bob higher than your head and sight upward along the string at the crown edge overhead. Move toward or away from the tree trunk until you are directly under the edge of the crown. Mark this point on the ground with a stake. Next, mark another point on the opposite side of the crown. Measure the horizontal distance between the stakes. Now similarly measure the smallest diameter of the crown passing through the center of the trunk. If available, you can also use a survey laser for this measurement. Add the two measurements together, and divide the sum by two. Round this figure to the nearest foot to obtain the average crown spread to report.

### **GPS COORDINATES**

If providing GPS coordinates, you must also include information on the projection, datum, spheroid, zone, and units as appropriate.

## **Outstanding Champions**

Points = Circumference (inches) + Height (feet) + 1/4 Average Crown Spread (feet)

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Signifies National Champion

# The Big Ten

The biggest of the big, these trees are high scoring through combinations of large circumference and great heights.

Points	Common Name	Scientific Name	County Location
573	Western Redcedar	Thuja plicata	Sanders
566	Western Redcedar	Thuja plicata	Lincoln
552	Western Redcedar	Thuja plicata	Lincoln
533	Carolina Poplar	Populus canadensis	Lake
530	Plains Cottonwood	Populus deltoides ssp. monilifera	Ravalli
525	Plains Cottonwood	Populus deltoides ssp. monilifera	Richland
492	European Ash	Fraxinus excelsior	Yellowstone
464	Crack Willow	Salix fragilis	Ravalli
461	Crack Willow	Salix fragilis	Ravalli
456	Ponderosa Pine	Pinus ponderosa var. ponderosa	Mineral

# The Small Ten

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Not every tree has the potential to grow to the towering heights of the Redcedar or the massive circumference of the Cottonwoods. The following is a list of diminutive champs.

Points	Common Name	Scientific Name	County Location
41	Silver Buffaloberry	Sherpherdia argentea	Sweet Grass
40	European Buckthorn	Rhamnus cathartica	Lake
39	Green/Sitka Alder	Alnus viridis ssp sinnuata	Flathead
37	Greene Mountain Ash	Artemesia tridentata	Beaverhead
36	Big Sagebrush	Artemesia tridentata	Beaverhead
36	Yellow Willow	Salix lutea	Beaverhead
33	Dogwood Red-osier	Cornus sercia	Missoula
33	Bristly Locust	Robinia hispida	Lake
29	Tiger Eye Sumac	Rhus typhina lacinata	Lake
27	Dogwood red-osier	Comus sercia	Ravalli

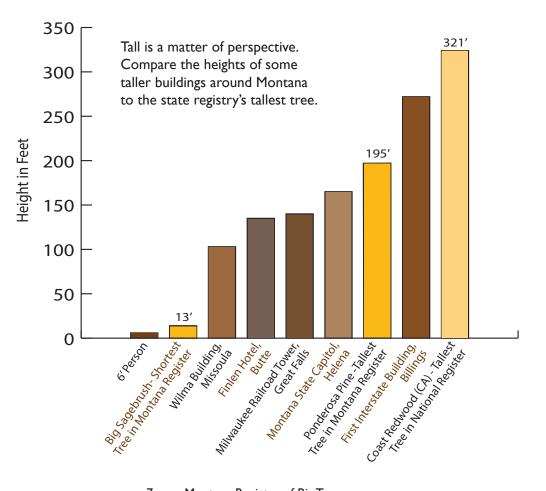
## The Tall Ten

A tree is defined as a woody plant at least 13 feet in height. These champs have no trouble meeting the height standard. They are the tallest measured specimens in the state.

Height (ft)	Common Name	Scientific Name	County Location
195	Ponderosa Pine	Pinus ponderosa var. scopulorum	Mineral
194	Western Hemlock	Tsuga heterophylla	Lincoln
187	Grand Fir	Abies grandis	Lincoln
178	Rocky Mountain Douglas-Fir	Pseudotsuga menziesii var. glauca	Sanders
178	Western White Pine	Pinus monticola	Lincoln
177	Western Larch	Larix occidentalis	Lincoln
176	Western redcedar	Thuja plicata	Sanders
176	Grand Fir	Abies grandis	Lake
175	Western Redcedar	Thuja plicata	Lincoln
173	Engleman Spruce	Picea engelmannii	Flathead

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### How Tall is Tall?



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### Story of a Champion: Plains Cottonwood

The Plains Cottonwood, Populus deltoides, is a fast growing species that can reach large volumes quickly, and Montana grows them very well. Found in areas of moist, low ground, it is a species that thrives across the state, east and west. This champion story starts on the extreme eastern edge

of the state. The oldest record in the Montana Registry for the Plains Cottonwood was a 308 point tree in Wibaux County. Measured in February of 1980, the tree located on the property of the town of Wibaux's Christian Fundamentalist Church was recognized as the first champion, but it faced immediate competition.



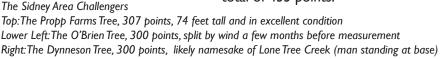


A trio of trees, all in Richland County near Sidney, were measured and submitted to the registry in 1980. All three would qualify as co-champions under the current rule of the 15 point range.

The Wibaux tree was officially displaced as champion by a 402 point tree owned by Mel Bakken, also in the Sidney area. Measured in July 1981 at 25 feet in circumference and 80' tall, Mr. Bakken remembered the tree as 4-5 feet tall in 1911,

> a few years before he purchased the land.

The championship moved to western Montana in 1987 to a specimen on the Daly Mansion property in Hamilton in Ravalli County . The Daly tree almost as large as in circumference as the Bakken tree at 24 feet, measured 40 feet taller, at 120 feet to earn a total of 433 points.



Sidney Herald, Sidney, MT, Wed., Jan. 27, 1982-5 It's official: County cottonwood is the state champ

BY KATHLEEN SCHULTZ Staff Write There's a little friendly rivalry in this state that's going practically bontana cittary of the initiated ges bontana cittary. The battle cry of the initiated ges bontation citter this: "Our Dopulus deloides are bigger than your bound deloides really are bound by the line that and county, if is togger. Well, one of them is, anyway. As a matter of that, it's the new state champon.

state champion. The Populus deltoides, a.k.a. the Plains cottonwood tree, in question belongs to Sidney's Mel Bakken. The man responsible for calling the cottonwood to the attention of the

Montana Tree Farm Committee is Myron Saylor, local Soil and Con-servation Services agent and self-

record of nearly 700 species of record of nearly 700 species of champion trees not only as a source of entertainment for tree lovers, but also as a means of studying environmental conditions beneficial to the development of large trees. Any tree that is a native of Montana mean sublic for the state condition and

can qualify for the state registry and anyone can send in a nomination, Savlor said.



The Bakken Tree, Sidney area (person in lower right corner) Photo Credit: USDA Soil Conservation Service, 1981

the Christian Fundamental Church

the Christian Fundame was measured at 17 ff around, 70 feet tall wit crown spread. Saylor has submitted cottowoods to the co-challengers, another nai registered trees. One of them was the tomwood, recently famou of the people of Crane's with the Lower Yellowski with the Lower Yellowste Electric Association. The REA had intended

tree down to make ou kn





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Then in 1999 two large trees in the Corvallis area of Ravalli County were measured for the registry. A 536 point tree on the old Quast Homestead owned by Wallace Weber became the new champion. The second tree located on the Huls Dairy property scored an impressing 506 points, just a little short of the mark.

In 2004 a wildland Plains Cottonwood champ was added to the registry as co-champion. Located in central Montana's Sweetgrass County, this 288 point tree is thought to be one of the oldest trees on the Yellowstone River plain. (See Notes page concerning urban-wildland and co-champion rules.)

Upon re-measure in 2009 the Huls Dairy tree, originally nominated in 1999, was found to have gained eight feet of height and 17 inches in circumference. Now scoring 530 points, it earned co-champion status. In 2010 the Huls Dairy tree became outright Montana urban champ when the co-champion **Quast Homestead tree was** cut down. The Huls Dairy tree was further recognized as the National Champ Plains Cottonwood in 2012 on the death of the reigning tree in Colorado. The National Champ continues to face competition; the strongest contenders being within Montana.

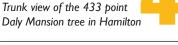
In 2012 two new nominations breaking the 500 point barrier were found. One a 504 point tree in Billings owned by Harley O'Donnell. The second a 507 point tree in Lake

County on Confederated Salish and Kootenai Tribal land. Edgar and Carl Sirucek lived on the land around this near-champion as kids before World War II, and the cable from their swing still hangs in the branches. Although these two trees fall just short of co-champion status in Montana, they both outscore nominated trees from other states. A Colorado tree at 466 points and a lowa tree at 430 points are the runners-up nationally. One thing these massive trees show, is that Montana grows Plains Cottonwoods very well. Recent Challengers Top: O'Donnell Tree, 504 points, Billings Bottom: Sirucek Tree, 507 points, Ronan area















	COMMON NAME	SCIENTIFIC NAME	URBAN or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
	ALDER										
National Champ	Green or Sitka	Alnus viridus ssp sinuata*	W	43 (43)	5	15	26	6	Flathead	2015	Mark Lewing
L.	Green or Sitka	Alnus viridus ssp sinuata*	W	39 (43)	6	18	19	10	Flathead	2015	Mark Lewing
	Mountain or Thinleaf	Alnus incana ssp. Tenuifolia	W	95 (none)	12	39	50	24	Ravalli	2013	Mark Lewing
	Red	Alnus rubra	W	180 (280)	35	111	59	38	Sanders	1999, 2013	Dennis Nicholls
	ASH										
National Champ	Green	Fraxinus pennsylvanica	W	268 (349)	54	170	84	58	Ravvalli	1998, 2012, 2022	Mark Lewing
	Green	Fraxinus pennsylvanica	U	232 (349)	53	167	54	45	Big Horn	2021	Garnett Dotson
	Green	Fraxinus pennsylvanica	W	176 (349)	41	128	41	29	Prairie	2000, 2013	Peter Lesica
	ASPEN										
	Quaking	Populus tremuloides*	W	245 (247)	38	118	119	33	Sanders	2014	Mark Lewing
	Quaking	Populus tremuloides*	W	238 (247)	37	116	115	29	Sanders	2014	Mark Lewing
	Quaking	Populus tremuloides	W	23 I (247)	37	116	103	46	Sanders	2013	Mark Lewing
	Quaking	Populus tremuloides	W	230 (247)	39	121	100	37	Sanders	2009, 2019	Drake Barton, Kathy Lloyd
	BIRCH										
National Champ	Paper	Betula papyrifera var. papyrifera	W	221 (none)	36	114	94	52	Sanders	1996, 2012, 2022	Dennis Nicholls
	Water	Betula occidentalis*	W	148 (none)	19	60	78	40	Ravalli	2010, 2020	Mark Lewing
	Water	Betula occidentalis*	W	I 38 (none)	17	54	77	29	Ravalli	2010, 2020	Mark Lewing
	BOXELDE	R									
	Boxelder	Acer negundo	U	266 (312)	66	53	42	48	Ravalli	2001, 2012, 2022	Mark Lewing
	BUCKTHC	ORN									
	Pursh's or Cascara	Rhamnus (Frangula) purshiana	W	71 (none)	8	24	40	26	Lincoln	2003, 2008, 2018	Alan Lane
	BUFFALO	BERRY									
	Silver	Shepherdia argentea*	W	56 (none)	П	34	17	18	Madison	2013	Mark Lewing
	Silver	Shepherdia argentea*	W	46 (none)	9	28	15	П	Madison	2013	Mark Lewing

	COMMON NAME	SCIENTIFIC NAME	URBAN or Wildland	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
	Silver	Shepherdia argentea	U	43 (none)	5	15	22	24	Ravalli	2016	Mark Lewing
	Silver	Shepherdia argentea	W	41 (none)	6	20	18	12	Sweet Grass	2004, 2013	Martin Flanagan
	CEDAR										
	Western redcedar	Thuja plicata*	W	573 (566)	122	385	176	49	Sanders	2022	Jacob Holtcamp
	CHOKECH	IERRY									
National Champ	Black Chokecherry	Prunus virginiana var. melanocarþa	U	 (   )	12	39	66	22	Flathead	2015	Mark Lewing, Trever, Joshua & Trystan Mertins
	Black Chokecherry	Prunus virginiana var. melanocarþa	W	70 (   )	11	34	30	23	Flathead	2013	Mark Lewing, Pamela Lewing, Dave Jones
	COTTONV	VOOD									
	Black	Populus balsamifera ssp. trichocarpa	W	407 (544)	83	260	124	90	Sanders	2016	Jeff Durkin, Travis Heater
	Lanceleaf	Populus acuminata	W	254 (none)	47	148	94	50	Sweet Grass	2004, 2010, 2020	Martin Flanagan
National Champ	Narrowleaf	Populus angustifolia	W	305 (305/ 311)	62	195	92	70	Sweet Grass	2014	Martin Flanagan, Mark Lewing
National Champ	Plains	Populus deltoides ssp. monilifera*	U	530 (530)	124	394	112	94	Ravalli	1999, 2009 2014	Mark Lewing, Pamela Lewing
	Plains	Populus deltoides ssp. monilifera*	W	525 (530)	132	416	88	85	Richland	2018	Mark Lewing, Pamela Lewing
	DOGWOO	D									
	Red-osier	Cornus sericea*	W	33 (none)	3	10	17	23	Missoula	2019	Mark Lewing, Pamela Lewing
	Red-osier	Cornus sericea*	W	27 (none)	3	10	15	9	Ravalli	2018	Mark Lewing, Corey Mertins
	DOUGLAS	-FIR									
	Rocky Mountain	Pseudotsuga menziesii var. glauca	W	299 (414)	64	202	83	56	Beaver- head	2022	Mark Lewing
	Douglas-fir	Pseudotsuga menziessi*	U	227 (891)	37	116	100	44	Missoula	2019	Mark Lewing, Addie Slanger
	Douglas-fir	Pseudotsuga menziessi*	U	219 (891)	37	116	92	42	Missoula	2019	Mark Lewing
	ELDER										
	Blue	Sambucus cerulea*	W	87 (170)	17	52	30	18	Missoula	2019	Mark Lewing, Pamela Lewing
	Blue	Sambucus cerulea*	W	82 (170)	14	43	28	42	Ravalli	2011, 2021	Mark Lewing
	ELM										
	American	Ulmus american	U	291 (393)	58	182	83	26	Lewis & Clark	2019	Dan Rogers

			URBAN								
	COMMON NAME	SCIENTIFIC NAME	or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
	American	Ulmus american	W	3  (393)	31	96	25	39	Wibaux	2014	Mark Lewing & Duane Hanson
	FIR										
	Grand	Abies grandis*	W	359 (511)	52	163	187	35	Lincoln	2008, 2018	Alan Lane, Mike Keller, Larry Coryell
	Grand	Abies grandis*	W	355 (511)	66	206	140	36	Lincoln	2019	Jim Seifert
	Grand	Abies grandis*	W	348 (511)	52	162	176	39	Lake	2016	Mark Lewing, Fred Friesz
	Grand	Abies grandis*	U	48 (5  )	20	62	80	23	Missoula	2019	Mark Lewing
	Subalpine	Abies lasiocarpa var. lasiocarpa*	W	240 (384)	29	91	144	20	Ravalli	2018	Mark Lewing, Pamela Lewing
	Subalpine	Abies lasiocarpa var. lasiocarpa*	W	237 (384)	34	106	126	20	Lincoln	2018	Mark Lewing
	Subalpine	Abies lasiocarpa var. lasiocarpa*	W	232 (384)	31	95	131	22	Beaver- head	2021	Mark Lewing
	Subalpine	Abies lasiocarpa var. lasiocarpa	U	195 (384)	30	94	96	20	Ravalli	2013	Mark Lewing & Trever Mertins
	HAWTHO	RN									
	Black	Crataegus douglasii	W	95 (none)	13	41	35	38	Missoula	2006, 2016	Bill Vaughn
	Castlegar	Crataegus castlegarensis	W	91 (91)	14	43	42	23	Flathead	2015	Mark Lewing
1	Fleshy	Crataegus succulenta	W	67 (71)	10	30	32	20	Flathead	2013	Mark Lewing, Pamela Lewing
	HEMLOCK										
	Mountain	Tsuga mertensiana	W	326 (428)	49	155	162	34	Sanders	2019	Mark Lewing, Doug Shaner
1	Western	Tsuga heterophylla	W	376 (546)	55	172	194	41	Lincoln	2018	Mark Lewing, Marshall Sweringen
	JUNIPER										
	Rocky Mountain	Juniperus scopulorum	W	195 (331)	41	130	55	39	Lake	2013	Mark Lewing
	Rocky Mountain	Juniperus scopulorum	U	56 (33 )	29	92	54	42	Missoula	1994, 2012, 2022	Mark & Pam Lewing
	LARCH										
	Alpine	Larix lyallii	W	247 (391)	43	136	91	39	Ravalli	2012	Mark Lewing
	Alpine	Larix lyallii	W	272 (391)	56	177	84	42	Ravalli	1996, 2022	Mark Lewing
	Hybrid	Larix lyallii x occidentalis	W	255 (none)	38	119	128	32	Missoula	2020	Mark Lewing, Nick Betz
	Western	Larix occidentalis*	W	430 (430)	85	267	154	36	Missoula	1995, 2011	Helen Smith, Micha Krebs



National Cham

	COMMON NAME	SCIENTIFIC NAME	URBAN or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
	Western	Larix occidentalis*	W	421 (426)	75	253	178	31	Sanders	2022	Mark Lewing & Marshall Swear- ingen
	Western	Larix occidentalis*	W	419 (426)	74	233	177	36	Lincoln	1979, 2012	E.L.Yahvah
	MAHOGAN	NY (Alderleaf Cercoca	arpus)								
	Mountain/ Alderleaf	Cercocarpus montanus	W	64 (110)	13	40	16	33	Ravalli	2013	Mark Lewing
	MAPLE										
	Rocky Mountain	Acer glabrum*	W	124 (196)	16	51	64	37	Sanders	2016	Max Clark
	MOUNTAI	N-ASH									
National	Greene	Sorbus scopulina	W	37 (37)	3	10	23	14	Ravalli	2015	Mark Lewing
CI	ΟΑΚ										
	Bur	Quercus macrocarþa*	ΔU	284 (426)	52	163	103	70	Ravalli	2013	Mark Lewing, John Koch, Krysta Mertins, Lindsey Lewing
	Bur	Quercus macrocarpa*	W	181 (426)	41	129	43	37	Carter	2016	Mark Lewing
	Bur	Quercus macrocarpa*	W	172 (426)	38	118	45	36	Carter	2016	Mark Lewing
	PINE										
	Limber	Pinus flexilis	W	268 (375)	72	225	34	37	Silver Bow	1992, 2013	Peter Lesica
	Lodgepole	Pinus contorta var. latifolia*	W	236 (257)	35	110	121	21	Ravalli	2013	Mark Lewing, Jason Stewart, Trever Mertins
	Lodgepole	Pinus contorta var. latifolia*	W	228 (257)	36	117	100	45	Missoula	2009, 2019	Steve Thompson
	Lodgepole	Pinus contorta var. latifolia*	W	221 (257)	36	113	96	46	Beaver- head	2018	Mark Lewing, Britt Herring
	Ponderosa	Pinus ponderosa var. scopulorum	W	456 (576)	78	246	195	61	Mineral	1982, 2005, 2015	Donald M.Wood, Don Campbell
	Ponderosa	Pinus ponderosa var. scopulorum	U	330 (456)	68	212	105	51	Ravalli	2013	Mark Lewing
	Western White	Pinus monticola*	W	424 (483)	75	237	178	35	Lincoln	1996, 2008, 2018	Alan Lane
National	Whitebark	Pinus albicaulis	W	287 (none)	57	180	94	52	Flathead	1986, 2013	Tom Hope
	REDCEDA	R									
	Western	Thuja plicata*	W	566 (922)	129	406	150	39	Lincoln	1981, 2013	Bruce Miehe
				(722)						2010	

			URBAN								
	COMMON NAME	SCIENTIFIC NAME	or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
	SAGEBRUS	SH									
	Big	Artemesia tridentata	W	36 (53)	6	20	13	12	Beaver- head	2012, 2022	Mark Lewing
	SERVICEB	ERRY									
	Western	Amelanchier alnifolia	W	49 (87)	5	14	30	19	Lincoln	2003, 2013	Martin Flanagan
	SPRUCE										
	Engelmann	Picea engelmannii*	W	409 (409)	72	227	173	35	Flathead	2014	Mark Lewing, Brandon Mertins
	Engelmann	Picea engelmannii*	U	208 (409)	34	106	94	33	Missoula	2019	Mark Lewing
National	White	Picea glauca	U	291 (269)	61	191	95	19	Lincoln	2009, 2019	Mark Lewing
Chi	WILLOW										
	Bebb	Salix bebbiana*	W	93 (none)	15	48	40	24	Ravalli	2011	Mark Lewing
	Bebb	Salix bebbiana*	W	90 (none)	19	59	27	15	Beaver- head	2020	Mark Lewing
	Booth	Salix boothii	W	84 (none)	15	48	31	20	Beaver- head	2018	Mark Lewing
	Geyer	Salix geyeriana	W	44 (none)	3	10	31	13	Beaver- head	2018	Mark Lewing
	Pacific	Sali lucida*	U	190 (199)	32	101	80	37	Ravalli	2021	Mark Lewing
	Pacific	Sali lucida*	U	188 (199)	33	104	76	30	Ravalli	2021	Mark Lewing
	Peachleaf	Salix amygdaloides*	W	176 (304)	35	110	50	64	Stillwater	2014	Martin Flanagan
	Peachleaf	Salix amygdaloides*	W	172 (304)	36	114	49	34	Yellow- stone	2016	Mark Lewing
	Planeleaf	Salix planifola	U	63 (none)	13	40	18	20	Madison	2018	Mark Lewing, Pamela Lewing
National	Sandbar	Salix interior	W	66 (59)	П	34	25	28	Ravalli	2011	Mark Lewing
Clian	Scouler	Salix scouler*	W	124 (228)	21	96	22	25	Ravalli	2021	Mark Lewing & Bob Storer
	Scouler	Salix scouler*	W	123 (228)	24	75	39	34	Ravalli	2011, 2021	Mark Lewing
	Whiplash or Greenleaf	Salix lasiandra var. caudata	W	I 24 (none)	22	69	45	39	Sweet Grass	2014	Martin Flanagan, Mark Lewing
	Yellow	Salix lutea	W	36 (none)	4	14	18	17	Beaver- head	2018	Mark Lewing
	YEW										
	Pacific	Taxus brevifolia*	W	93 (250)	16	49	37	26	Lake	1992, 2012	Jerry and Caroline Berner
	Pacific	Taxus brevifolia*	W	85 (250)	17	52	26	28	Lake	1992, 2012	Jerry and Caroline Berner

COMMON NAME	SCIENTIFIC NAME	URBAN or Wildland	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
APPLE										
Chief Plenty Coups Heritage	Malus pumila	U	75 (none)	13	41	28	23	Big Horn	2016	Mark Lewing, Genny Haskins
MacIntosh	Malus domestica	U	80 (none)	23	71.5	29	42	Flathead	2022	Kirk Hammerquist
APRICO	Г									
Manchurian	Prunus mandshurica	U	<b>99</b> (none)	17	54	40	18	Ravalli	2020	Mark Lewing
ASH										
Blue	Fraxinau quadrangulata*	U	49 (3 5)	29	91	47	42	Ravalli	2016	Mark Lewing
Blue	Fraxinau quadrangulata*	U	140 (315)	28	87	43	41	Ravalli	2016	Mark Lewing
European	Fraxinus excelsior	U	492 (none)	116	360	115	66	Yellow- stone	2022	Yellowstone
European	Fraxinus excelsior	U	l 28 (none)	20	64	50	14	Flathead	2018	Fred Bicha, Josh Keene
White	Fraxinus americana*	U	159 (398)	28	87	58	57	Ravalli	2016	Mark Lewing
White	Fraxinus americana*	U	156 (398)	27	86	58	50	Ravalli	2016	Mark Lewing
BIRCH										
European White	Betula pendula	U	213 (none)	40	125	76	47	Ravalli	2014	Mark Lewing, Sylvia McNeil
BUCKEY	E									
Ohio	Aesculus galbra*	U	97 (274)	19	61	29	26	Missoula	2014	Huck Woolsey, Finn Woolsey, Mike DeGrandpre
Ohio	Aesculus galbra*	U	89 (274)	17	52	31	25	Ravalli	2013	Mark Lewing
Yellow	Aesculus flava	U	142 (390)	28	87	44	42	Ravalli	2021	Mark Lewing
BUCKTH	IORN									
European	Rhamnus cathartica	W	41.35 (60)	9	9	28	19	Yellow- stone	2021	Miranda Rowland & Emma Hardy
European	Rhamnus cathartica	ΔW	40 (60)	5	17	18	18	Lake	2013	Mark Lewing
BUNYA B	BUNYA									
Bunya	Araucaria bidwillii	U	59 (none)	5	17	38	15	Missoula	2019	Mark Lewing, Kelly Chadwick, & Ken Stolz
BUTTER	NUT									
Butternut	Juglans cinerea*	U	168 (377)	31	97	56	59	Ravalli	2016	Mark Lewing
Butternut	Juglans cinerea*	U	162 (377)	32	102	46	57	Ravalli	2016	Mark Lewing

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	COMMON NAME	SCIENTIFIC NAME	URBAN or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
	CATALPA										
National Champ	Northern	Catalpa speciosa	U	218 (195)	40	126	59	40	Yellow- stone	2022	Steve Riley
C.	CEDAR										
	Arborvitae	Thuja occidentalis*	U	106 (312)	20	62	41	П	Ravalli	2016	Mark Lewing
	Arborvitae	Thuja occidentalis*	U	101 (312)	17	53	45	12	Ravalli	2016	Mark Lewing
	СНОКЕСН	IERRY									
	Canada Red	Prunus virginiana	U	101 (254)	18	58	33	38	Gallatin	2016	Vince Heier
	CRABAPPI	LE									
	Siberian	Malus barcata	U	90 (none)	14	44	33	52	Ravalli	2016	Mark Lewing, Pamela Lewing
	ELM										
	Camperdown	Ulmus glabra	U	137 (none)	35	111	18	30	Ravalli	2020	Mark Lewing, Sylvia McNeil
	English	Ulmus procera	U	193 (none)	37	115	64	58	Missoula	2019	Mark Lewing
	Siberian	Ulmus pumila	ΔU	290 (398)	56	177	92	83	Missoula	2017	Mark Lewing
	Siberian	Ulmus pumila	U	276 (398)	57	183	88	63	Ravalli	2022	Mark Lewing
	Siberian	Ulmus pumila	U	387 (398)	70	221	82	168	Ravalli	2021	Mark Lewing & David Fauss
	Siberian	Ulmus pumila	ΔW	226 (398)	42	132	76	73	Missoula	2011	Mark Lewing, Peter Lesica
	FIG										
	Laurel	Ficus microcarpa nitida	U	74 (none)	7	23	42	36	Missoula	2019	Mark Lewing, Kelly Chadwick, Ken Stolz
	Fiddeleaf	Ficus lyrata	U	67 (none)	6	20	40	28	Missoula	2019	Mark Lewing, Kelly Chadwick, Ken Stolz
	FIR										
National	White	Abies concolor	W	266 (359)	35	110	148	32	Sanders	2022	Mark Lewing
Ulan	White	Abies concolor	W	233 (359)	28	88	136	34	Sanders	2018	Mark Lewing & Landon Henderson
	White	Abies concolor	U	203 (359)	32	102	92	34	Sanders	2018	Mark & Pamela Lewing
	GINKGO										
	Ginkgo	Ginkgo biloba	U	45 (4 4)	23	73	61	45	Missoula	2019	Mark Lewing, Beth Judy & Kelly Chadwick

			URBAN								
	COMMON NAME	SCIENTIFIC NAME	or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
	HACKBERI	RY									
	Common	Celtis occidentalis	U	197 (398)	35	109	75	51	Yellow- stone	2022	Mark Lewing
	ΗΑ₩ΤΗΟ	RN									
	European/ Oneseed	Crataegus monoyna	U	46 (none)	7	23	19	17	Ravalli	2016	Mark Lewing, Sue Falk
	HICKORY										
National	Shellbark	Carya laciniosa	U	327 (327)	15	47	62	33	Yellow- stone	2022	Mike Garvey
C	HONEYLO	CUST									
National Champ	Thornless Common	Gleditsia triacanthos var. inermis	U	192 (none)	33	102	77	51	Yellow- stone	2012, 2022	Mike Garvey, Fred Bicha
	HONEYSU	JCKLE									
	Tartarian	Lonicera tartarica	U	55 (none)	9	29	21	21	Missoula	2018	Mark Lewing
	HORSECH	IESTNUT									
National Champ	Horsechestnut	Aesculus hippocastanum	U	244 (341)	54	169	62	52	Ravalli	2014	Mark Lewing
C.	JUNIPER										
	Drooping	Juniperus flaccida*	U	68 (160)	11	30	34	14	Missoula	2020	Mark Lewing, Pam Lewing
	Drooping	Juniperus flaccida*	U	58 (160)	8	25	28	15	Missoula	2020	Mark Lewing, Pam Lewing
	КАРОК										
	Kapok Tree	Ceiba pentrandra	U	63.5 (none)	4	13	38	50	Missoula	2022	Mark Lewing, K. Chadwick & K Moriarty
	KENTUCK										
	Kentucky cof- feetree	Gymnocladus dioicus	U	126 (317)	22	69	57	40	Yellow- stone	2022	Mike Garvey
	LARCH										
	European	Larix decidua	U	161 (294)	28	89	62	39	Missoula	2019	Mark Lewing, Kelly Chadwick, Kim Briggeman
	LILAC										
	Common	Syringa vulgaris	U	54 (none)	9	28	23	10	Ravalli	2013	Mark Lewing
National Champ	Japanese Tree	Syrimga retoci;ata	U	122 (175)	26	83	32	29	Missoula	2014	Huck Woolsey, Finn Woolsey, Bridget Tinsley, Jamie Kirby, Dennis Bragg
	LINDEN										
	American	Tilia americana	U	246 (399)	45	140	96	41	Ravalli	2010, 2020	Mark Lewing

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	COMMON NAME	SCIENTIFIC NAME	URBAN or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR	
National Champ	Little Leaf	Tilia cordata	U	243 (325)	46	145	81	68	Missoula	2014	Huck Woolsey, Finn Woolsey	
	LOCUST											
	Black	Robinia pseudoacacia*	ΔU	269 (443)	58	181	74	56	Ravalli	2010, 2020	Mark Lewing, Pamela Lewing	
	Black	Robinia pseudoacacia*	ΔU	267 (443)	61	190	66	42	Ravalli	2010, 2020	Mark Lewing	
	Bristly	Robinia hispida	U	33 (none)	4	12	18	13	Lake	2015	Mark Lewing, Trever Mertins	
National Champ	Clammy	Robinia viscosa	U	60 (60)	9	27	27	25	Ravalli	2016	Mark Lewing, Sue Falk	
C.	MAPLE											
National Champ	Amur	Acer ginnal	U	57 (100)	10	30	21	22	Ravalli	2016	Mark Lewing	
National Champ	Norway	Acer platanoides	ΔU	298 (298)	67	210	70	7.	Ravalli	2010, 2020	Mark Lewing, Pamela Lewing	
Chart	Red	Acer rubrum	U	140 (365)	26	82	47	44	Missoula	2014	Huck Woolsey, Finn Woolsey	
	Silver	Acer saccharinum	U	367 (412)	80	252	99	65	Ravalli	2010, 2020	Mark Lewing	
	Sugar	Acer saccharum*	U	200 (364)	38	120	62	55	Missoula	2019	Mark Lewing, Kelly Chadwick, Kim Briggeman	
	Sugar	Acer saccharum*	U	198 (364)	40	126	60	49	Ravalli	2013	Mark Lewing, Lindsey Lewing, Krysta Mertins	
	Sycamore	Acer pseudoplantanus	U	197 (none)	37	117	65	15	Flathead	2018	Fred Bicha, Josh Keene	
	MOUNTAIN-ASH											
National	European	Sorbus aucuparia*	ΔU	143 (none)	29	91	43	37	Flathead	2013	Mark, John and Paul Lewing	
Chart	European	Sorbus aucuparia*	ΔW	84 (143)	9	29	49	22	Missoula	2015	Mark Lewing	
	European	Sorbus aucuparia*	ΔW	80 (143)	10	30	44	24	Missoula	2015	Mark Lewing	
	European	Sorbus aucuparia*	ΔW	72 (143)	10	31	35	22	Missoula	2015	Mark Lewing	
	Oakleaf	Sorbus x hybrida	U	l 50 (none)	32	101	38	44	Flathead	2016	Mark, John and Paul Lewing	
	MULBERRY											
	Red	Morus rubra	U	l 37 (398)	25	77	49	43	Ravalli	2022	Mark Lewing & Bob Storer	
	ΟΑΚ											
National	English	Quercus robur	U	212 (382)	38	119	79	54	Ravalli	2022	Mike Garvey	
Citatore	English	Quercus robur	U	207 (382)	40	125	66	64	Missoula	2019	Mark Lewing, Kelly Chadwick, Kim Briggeman	

	COMMON NAME	SCIENTIFIC NAME	URBAN or Wildland	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
'	Oregon White	Quercus garryana	U	160 (408)	32	101	44	60	Ravalli	2016	Mark Lewing
	Pin	Quercus palustris	U	198 (307)	35	111	76	45	Missoula	2014	Huck Woolsey, Finn Woolsey
	Red	Quercus rubra	U	246 (456)	55	174	82	74	Missoula	2014	Huck Woolsey, Finn Woolsey
	Scarlet	Quercus rubra	U	173 (360)	33	103	53	70	Missoula	2022	Mark Lewing
	Swamp White	Quercus bicolor	U	174 (399)	32	101	60	50	Yellow- stone	2012, 2022	Steve Riley
	PEAR										
	Tait	Pyrus spp.	U	126 (253)	23	72	46	31	Ravalli	2020	Mark Lewing
	PINE										
	Austrian	Pinus nigra	U	170 (none)	34	107	51	48	Missoula	2021	Mark & Pam Lewing
	Austrian	Pinus nigra	U	158 (none)	30	95	51	46	Missoula	2021	Mark & Pam Lewing
	Eastern White	Pinus strobus	U	213 (390)	36	114	88	44	Missoula	2019	Mark Lewing
	Rocky Mtn. Bristlecone	Pinus aristata	U	114 (233)	19	61	45	33	Missoula	2019	Mark Lewing, Phillip Williams
National Champ	Scotch	Pinus sylvestris	U	181 (241)	32	100	73	33	Missoula	2013	Mark Lewing, Pamela Lewing
C.	POPLAR										
	Carolina	Populus canadensis	U	533 (none)	123	385	123	98	Lake	2018	Mark Lewing, Pamela Lewing
	Lombardy	Populus nigra var. italica	U	305 (none)	75	236	65	14	Ravalli	2016	Mark Lewing, Pamela Lewing, Thayer Jacques
National	White or Silver	Populus alba	ΔU	415 (415)	96	301	92	86	Gallatin	2014	Edie Dooley
C	RUSSIAN-	OLIVE									
	Russian Olive	Elaeagnus angustifolia*	ΔU	183 (none)	41	130	42	42	Missoula	2016	Mark Lewing
	Russian Olive	Elaeagnus angustifolia*	ΔU	175 (none)	38	119	42	55	Sanders	2015	Mark Lewing, Trever Mertins, Leo & Sarah Pate
	SMOKETREE										
	American	Cotinus obovatus	U	46 (195)	6	20	23	П	Ravalli	2017	Mark Lewing
	SPRUCE										
	Black Hills	Picea glauca Densata	U	172 (none)	34	108	54	42	Missoula	2018	Mark Lewing
	Blue	Picea pungens*	ΔU	235 (323)	35	111	116	31	Ravalli	2010, 2020	Mark Lewing
	Blue	Picea pungens*	ΔU	232 (323)	35	113	110	31	Ravalli	2010, 2020	Mark Lewing

	COMMON NAME	SCIENTIFIC NAME	URBAN or Wildland	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
National	Norway	Picea abies*	U	253 (none)	45	142	98	53	Missoula	2014	Mark Lewing
Chart	Norway	Picea abies*	U	250 (none)	39	121	120	35	Ravalli	2014	Mark Lewing
	SUMAC										
National	Staghorn	Rhus typhina	U	69 (69)	14	44	19	26	Ravalli	2014	Mark Lewing
Chart	Tiger Eye	Rhus typhina lacinata	U	29 (none)	4	12	14	11	Lake	2018	Mark Lewing, Pamela Lewing,
	SYCAMOR	E									
	American	Platanus occidentalis	U	200 (578)	41	128	64	33	Ravalli	2013	Mark Lewing, Lindsey Lewing, Krysta Mertins
	WALNUT										
	Black	Juglans nigra	U	216 (none)	44	138	61	70	Missoula	2014	Mark Lewing, Bruce Maclay, Mary Maclay
	WILLOW										
National	Crack	Salix fragilis	ΔU	464 (none)	115	362	79	90	Ravalli	2021	Mark Lewing
Ch	Crack	Salix fragilis	ΔU	461 (461)	124	388	55	72	Ravalli	2011	Mark Lewing
National	Weeping	Salix babylonica*	ΔU	301 (none)	61	191	94	65	Ravalli	2020	Mark Lewing
CIT	Weeping	Salix babylonica*	ΔU	292 (411)	72	226	54	49	Ravalli	2014	Mark Lewing
	White	Salix alba	ΔU	414 (none)	106	333	67	56	Ravalli	1995, 2009, 2019	Mark Lewing, Pamela Lewing, Rosemary O'Neil
National Champ	White	Salix alba	ΔU	414 (none)	106	333	67	56	Ravalli	1995, 2009, 2019	Mark Lewing, Pamela Lewing, Rosemary O'Neil



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