

2020 Montana Register of BIG TREES



Vintage engraving of a Ponderosa Pine, Montana's State Tree



AMERICAN FORESTS

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.

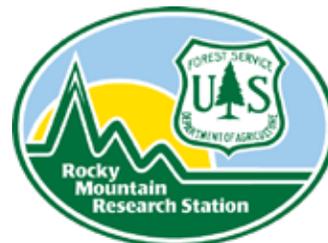
The DNRC would like to recognize our partners in this program. The U.S. Forest Service and its regional Rocky Mountain Research Station, the American Tree Farm System, and the American Forests organization are all valuable partners. The state’s Register of Big Trees is a result of the work of many people’s 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: <http://dnrc.mt.gov/divisions/forestry/forestry-assistance/montana-big-trees-program> or email me at danrogers@mt.gov.

Good luck in your search!

Dan Rogers
Montana Big Trees Program Coordinator



AMERICAN FORESTS

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 Δ 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

Points
top # = tree score
(#) = national champ score

Diameter at breast height
(4.5' from ground) in inches

Circumference in inches

Height in feet

Crown spread in feet
By County

Year when tree was measured; if two years are listed the second is time of re-measurement

COMMON NAME	SCIENTIFIC NAME	URBAN or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
ASH										
Green	<i>Fraxinus pennsylvanica</i> *	U	236 (395)	48	151	70	61	Ravalli	1998	Mark Lewing
Green	<i>Fraxinus pennsylvanica</i> *	W	174 (395)	41	128	39	29	Prairie	2000	Peter Lesica

* Indicates co-champions Scores here are NOT within 15 points, but because one is Urban and one Wildland these two are co-champions.



Rocky Mountain Juniper, *Juniperus scopulorum*,
Missoula County

Montana Big Tree Program - Nomination Form

TREE

Common name:

Scientific name:

Date measured:

Condition of tree: Excellent Good Fair Poor

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:

POINTS

Circumference (inches) + Height (feet) + $\frac{1}{4}$ Average Crown Spread (feet) = Total Points
from above: $A+B+(.25 \times C) = \text{Total Points}$

Calculated TOTAL POINTS:

LOCATION

Setting: Wildland Urban

County:

Township, Range, Section:

GPS coordinates, if available (see instructions):

DIRECTIONS & MAP

Give directions to the tree and, attach a photocopy 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: Montana Big Tree Program, c/o Dan Rogers,
MT DNRC Forestry Assistance Bureau, 2705 Spurgin Road, Missoula, MT 59804

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 9½ inches in circumference (3 inches in diameter) at 4½ 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 (Δ).

MEASURING CIRCUMFERENCE

Measure circumference of the tree in inches at 4½ feet above the ground. If there is a fork at this point (at 4½ feet), measure the smallest circumference below the fork. If the tree branches below 4½ feet, measure the largest single stem at 4½ 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

$$\text{Points} = \text{Circumference (inches)} + \text{Height (feet)} + \frac{1}{4} \text{ Average Crown Spread (feet)}$$

 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
566	Western Redcedar	<i>Thuja plicata</i>	Lincoln
552	Western Redcedar	<i>Thuja plicata</i>	Lincoln
533	Carolina Poplar	<i>Populus canadensis</i>	Lake
 530	Plains Cottonwood	<i>Populus deltoides ssp. monilifera</i>	Ravalli
525	Plains Cottonwood	<i>Populus deltoides ssp. monilifera</i>	Richland
 461	Crack Willow	<i>Salix fragilis</i>	Ravalli
 456	Ponderosa Pine	<i>Pinus ponderosa var. ponderosa</i>	Mineral
 432	White Poplar	<i>Populus alba</i>	Gallatin
 426	Western Larch	<i>Larix occidentalis</i>	Missoula
424	Western White Pine	<i>Pinus monticola</i>	Lincoln

The Small Ten

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.

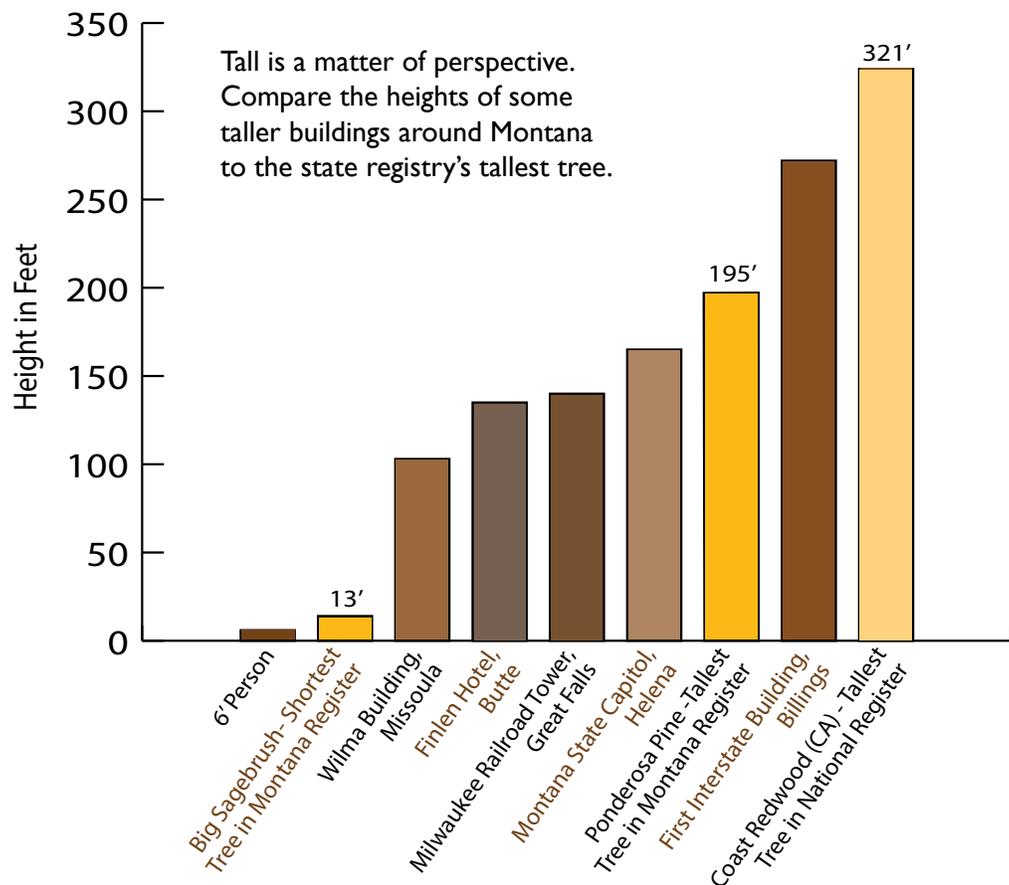
Points	Common Name	Scientific Name	County Location
27	Red-osier Dogwood	<i>Cornus sericea</i>	Ravalli
29	Tiger Eye Sumac	<i>Rhus typhina lacinata</i>	Lake
33	Big Sagebrush	<i>Artemisia tridentata</i>	Beaverhead
33	Bristly Locust	<i>Robinia hispida</i>	Lake
33	Red-osier Dogwood	<i>Cornus sericea</i>	Missoula
36	Yellow Willow	<i>Salix lutea</i>	Beaverhead
 37	Greene Mountain-Ash	<i>Sorbus scopulina</i>	Ravalli
39	Green or Sitka Alder	<i>Alnus viridus ssp. sinuata</i>	Flathead
40	European Buckthorn	<i>Rhamnus cathartica</i>	Lake
41	Silver Buffaloberry	<i>Shepherdia argentea</i>	Sweet Grass

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	<i>Pinus ponderosa var. scopulorum</i>	Mineral
194	Western Hemlock	<i>Tsuga heterophylla</i>	Lincoln
187	Grand Fir	<i>Abies grandis</i>	Lincoln
178	Rocky Mountain Douglas-Fir	<i>Pseudotsuga menziesii var. glauca</i>	Sanders
178	Western White Pine	<i>Pinus monticola</i>	Lincoln
177	Western Larch	<i>Larix occidentalis</i>	Lincoln
176	Grand Fir	<i>Abies grandis</i>	Lake
175	Western Redcedar	<i>Thuja plicata</i>	Lincoln
173	Engelmann Spruce	<i>Picea engelmannii</i>	Flathead
162	Mountain Hemlock	<i>Tsuga mertensiana</i>	Sanders

How Tall is Tall?



Story of a Champion: Plains Cottonwood

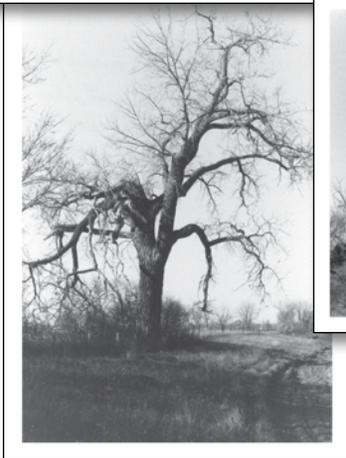
The Plains Cottonwood, *Populus deltoides*, is a fast growing species that can reach large volumes quickly, and Montana grows them very well. Found in areas of moist, low ground, it is a species that thrives across the state, east and west. This champion story starts on the extreme eastern edge of the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

308



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.

The Sidney Area Challengers

Top: The Propp Farms Tree, 307 points, 74 feet tall and in excellent condition

Lower Left: The O'Brien Tree, 300 points, split by wind a few months before measurement

Right: The Dynneson Tree, 300 points, likely namesake of Lone Tree Creek (man standing at base)

Sidney Herald, Sidney, MT, Wed., Jan. 27, 1982-5

It's official: County cottonwood is the state champ

By KATHLEEN SCHULTZ
Staff Writer

There's a little friendly rivalry in this state that's going practically unnoticed by a major section of the Montana citizenry.

The battle cry of the initiated goes something like this: "Our *Populus deltoides* are bigger than your *Populus deltoides*!"

"And here in Richland County, it's true. Our *Populus deltoides* really are bigger. Well, one of them is, anyway. As a matter of fact, it's the new 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 Conservation Services agent and self-record of nearly 200 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 can qualify for the state registry and anyone can send in a nomination, Saylor said.

The Christian Fundamental Church was measured at 13 feet in circumference, around, 70 feet tall with a crown spread.

Saylor has submitted cottonwoods to the co-challengers, another native registered trees.

One of them was the cottonwood, recently felled by the people of Crane's with the Lower Yellowstone Electric Association.

The REA had intended to cut the tree down to make room for a power line.

Crane's cottonwood was 24 feet in circumference and 80 feet tall.

The Bakken cottonwood measured 25 feet in circumference and 80 feet tall.

402



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

433

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 impressive 506 points, just a little short of the mark.

Trunk view of the 433 point Daly Mansion tree in Hamilton



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.



Huls Dairy Tree, Corvallis
National Champ

530

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 Iowa 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





Paper Birch, Betula papyrifera var. papyrifera, Sanders County

Native Trees

National
Champ

COMMON NAME	SCIENTIFIC NAME	URBAN or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
ALDER										
Green or Sitka	<i>Alnus viridus ssp. sinuata*</i>	W	43 (43)	5	15	26	6	Flathead	2015	Mark Lewing
Green or Sitka	<i>Alnus viridus ssp. sinuata*</i>	W	39 (43)	6	18	19	10	Flathead	2015	Mark Lewing
Mountain or Thinleaf	<i>Alnus incana ssp. tenuifolia*</i>	W	95 (none)	12	39	50	24	Ravalli	2013	Mark Lewing
Mountain or Thinleaf	<i>Alnus incana ssp. tenuifolia*</i>	W	91 (none)	12	38	48	20	Ravalli	2011	Mark Lewing
Mountain or Thinleaf	<i>Alnus incana ssp. tenuifolia*</i>	W	80 (none)	11	35	42	12	Ravalli	2011	Mark Lewing
Red	<i>Alnus rubra</i>	W	180 (280)	35	111	59	38	Sanders	1999, 2013	Dennis Nicholls
ASH										
Green	<i>Fraxinus pennsylvanica*</i>	U	251 (349)	51	159	79	53	Ravalli	1998, 2012	Mark Lewing
Green	<i>Fraxinus pennsylvanica*</i>	W	176 (349)	41	128	41	29	Prairie	2000, 2013	Peter Lesica
ASPEN										
Quaking	<i>Populus tremuloides*</i>	W	245 (291)	38	118	119	33	Sanders	2014	Mark Lewing
Quaking	<i>Populus tremuloides*</i>	W	243 (291)	55	172	60	45	Lewis & Clark	1993, 2009	D.J. Bakken, Jim Greene
Quaking	<i>Populus tremuloides*</i>	W	238 (291)	37	116	115	29	Sanders	2014	Mark Lewing
Quaking	<i>Populus tremuloides*</i>	W	231 (291)	37	116	103	46	Sanders	2012	Mark Lewing, Ole Leivestad
Quaking	<i>Populus tremuloides*</i>	W	230 (291)	39	121	100	37	Sanders	2009, 2019	Drake Barton, Kathy Lloyd
BIRCH										
Paper	<i>Betula papyrifera var. papyrifera</i>	W	208 (219)	34	106	90	48	Sanders	1996, 2012	Dennis Nicholls
Water	<i>Betula occidentalis*</i>	W	150 (none)	18	59	82	36	Ravalli	2010	Mark Lewing
Water	<i>Betula occidentalis*</i>	W	145 (none)	16	53	82	38	Ravalli	2010	Mark Lewing
BOXELDER										
	<i>Acer negundo</i>	U	276 (312)	66	208	54	57	Ravalli	2001, 2012	Mark Lewing
BUCKTHORN										
Pursh's or Cascara	<i>Rhamnus (Frangula) purshiana</i>	W	71 (none)	8	24	40	26	Lincoln	2003, 2008, 2018	Alan Lane
BUFFALOBERRY										
Silver	<i>Shepherdia argentea*</i>	W	56 (none)	11	34	17	18	Madison	2013	Mark Lewing
Silver	<i>Shepherdia argentea*</i>	W	46 (none)	9	28	15	11	Madison	2013	Mark Lewing

Native Trees

COMMON NAME	SCIENTIFIC NAME	URBAN or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
Silver	<i>Shepherdia argentea</i> *	U	43 (none)	5	15	22	24	Ravalli	2016	Mark Lewing
Silver	<i>Shepherdia argentea</i> *	W	41 (none)	6	20	18	12	Sweet Grass	2004, 2013	Martin Flanagan
CHOCKECHERRY										
 Black Chokecherry	<i>Prunus virginiana var. melanocarpa</i> *	U	111 (111)	12	39	66	22	Flathead	2015	Mark Lewing, Trever, Joshua & Trystan Mertins
Black Chokecherry	<i>Prunus virginiana var. melanocarpa</i> *	U	107 (111)	17	54	41	48	Powell	1991, 2012	Jim Anderson
Black Chokecherry	<i>Prunus virginiana var. melanocarpa</i> *	W	70 (111)	11	34	30	23	Flathead	2013	Mark Lewing, Pamela Lewing, Dave Jones
COTTONWOOD										
Black	<i>Populus balsamifera ssp. trichocarpa</i> *	W	407 (544)	83	260	124	90	Sanders	2016	Jeff Durkin, Travis Heater
Lanceleaf	<i>Populus acuminata</i>	W	234 (none)	43	135	84	60	Sweet Grass	2004, 2010	Martin Flanagan
 Narrowleaf	<i>Populus angustifolia</i> *	W	305 (305/311)	62	195	92	70	Sweet Grass	2014	Martin Flanagan, Mark Lewing
Narrowleaf	<i>Populus angustifolia</i> *	U	263 (305/311)	53	166	78	64	Carbon	2011	Martin Flanagan
 Plains	<i>Populus deltoides ssp. monilifera</i> *	U	530 (530)	124	394	112	94	Ravalli	1999, 2009	Mark Lewing, Pamela Lewing
Plains	<i>Populus deltoides ssp. monilifera</i> *	W	525 (530)	132	416	88	85	Richland	2018	Mark Lewing, Pamela Lewing
DOGWOOD										
Red-osier	<i>Cornus sericea</i> *	W	33 (66)	3	10	17	23	Missoula	2019	Mark Lewing, Pamela Lewing
Red-osier	<i>Cornus sericea</i> *	W	27 (66)	3	10	15	9	Ravalli	2018	Mark Lewing, Corey Mertins
DOUGLAS-FIR										
 Rocky Mountain	<i>Pseudotsuga menziesii var. glauca</i> *	W	414 (414)	71	223	178	48	Sanders	1996, 2012	Lynette Kelly, Jess Evans, Ben Isenburg
Rocky Mountain	<i>Pseudotsuga menziesii var. glauca</i> *	U	227 (414)	37	116	100	44	Missoula	2019	Mark Lewing, Addie Slinger
Rocky Mountain	<i>Pseudotsuga menziesii var. glauca</i> *	U	219 (414)	37	116	92	42	Missoula	2019	Mark Lewing
ELDER										
Blue	<i>Sambucus cerulea</i> *	W	87 (170)	17	52	30	18	Missoula	2019	Mark Lewing, Pamela Lewing
Blue	<i>Sambucus cerulea</i> *	W	77 (170)	13	41	27	35	Ravalli	2011	Mark Lewing
ELM										
American	<i>Ulmus americana</i> *	U	300 (none)	65	205	74	83	Ravalli	2001, 2012	Mark Lewing

American Elm, *Ulmus americana*, Lewis & Clark County



Native Trees

COMMON NAME	SCIENTIFIC NAME	URBAN or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
American	<i>Ulmus americana*</i>	U	297 (none)	59	186	95	65	Ravalli	2001, 2012	Mark Lewing
American	<i>Ulmus americana*</i>	U	291 (none)	58	182	83	26	Lewis & Clark	2019	Dan Rogers
American	<i>Ulmus americana*</i>	W	131 (none)	31	96	25	39	Wibaux	2014	Mark Lewing, Duane Hanson
FIR										
Grand	<i>Abies grandis*</i>	W	359 (511)	52	163	187	35	Lincoln	2008, 2018	Alan Lane, Mike Keller, Larry Coryell
Grand	<i>Abies grandis*</i>	W	355 (511)	66	206	140	36	Lincoln	2019	Jim Seifert
Grand	<i>Abies grandis*</i>	W	348 (511)	52	162	176	39	Lake	2016	Mark Lewing, Fred Friesz
Grand	<i>Abies grandis*</i>	U	148 (511)	20	62	80	23	Missoula	2019	Mark Lewing
Subalpine	<i>Abies lasiocarpa var. lasiocarpa*</i>	W	240 (384)	29	91	144	20	Ravalli	2018	Mark Lewing, Pamela Lewing
Subalpine	<i>Abies lasiocarpa var. lasiocarpa*</i>	W	237 (384)	34	106	126	20	Lincoln	2018	Mark Lewing
Subalpine	<i>Abies lasiocarpa var. lasiocarpa*</i>	U	195 (384)	30	94	96	20	Ravalli	2013	Mark Lewing, Trever Mertins
HAWTHORN										
Black	<i>Crataegus douglasii</i>	W	95 (none)	13	41	35	38	Missoula	2006, 2016	Bill Vaughn
Castlegar	<i>Crataegus castlegarensis</i>	W	91 (91)	14	43	42	23	Flathead	2015	Mark Lewing
Fleshy	<i>Crataegus succulenta</i>	W	67 (71)	10	30	32	20	Flathead	2013	Mark Lewing, Pamela Lewing
HEMLOCK										
Mountain	<i>Tsuga mertensiana</i>	W	326 (428)	49	155	162	34	Sanders	2019	Mark Lewing
Western	<i>Tsuga heterophylla</i>	W	376 (546)	55	172	194	41	Lincoln	2018	Mark Lewing, Marshall Sweringen
JUNIPER										
Rocky Mountain	<i>Juniperus scopulorum*</i>	W	195 (331)	41	130	55	39	Lake	2013	Mark Lewing
Rocky Mountain	<i>Juniperus scopulorum*</i>	U	148 (331)	28	88	51	36	Missoula	1994, 2012	Vick Applegate
LARCH										
Alpine	<i>Larix lyallii*</i>	W	261 (391)	57	178	78	43	Ravalli	1996, 2012	Steve Arno
Alpine	<i>Larix lyallii*</i>	W	247 (391)	43	136	91	39	Ravalli	2012	Mark Lewing
Hybrid	<i>Larix lyallii x occidentalis</i>	W	261 (none)	44	140	110	44	Missoula	2009	Steve Arno, Clint Carlson
Western	<i>Larix occidentalis*</i>	W	426 (426)	84	264	153	34	Missoula	1995, 2011	Helen Smith, Micha Krebs
Western	<i>Larix occidentalis*</i>	W	419 (426)	74	233	177	36	Lincoln	1979, 2012	E.L. Yahvah

National Champ

National Champ

Native Trees

	COMMON NAME	SCIENTIFIC NAME	URBAN or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
	MAHOGANY (Alderleaf Cercocarpus)										
National Champ	Mountain/ Alderleaf	<i>Cercocarpus montanus</i>	W	64 (64)	13	40	16	33	Ravalli	2013	Mark Lewing
	MAPLE										
	Rocky Mountain	<i>Acer glabrum*</i>	W	124 (196)	16	51	64	37	Sanders	2016	Max Clark
	MOUNTAIN-ASH										
National Champ	Greene	<i>Sorbus scopulina</i>	W	37 (37)	3	10	23	14	Ravalli	2015	Mark Lewing
	OAK										
	Bur	<i>Quercus macrocarpa*</i>	ΔU	284 (426)	52	163	103	70	Ravalli	2013	Mark Lewing, John Koch, Krysta Mertins, Lindsey Lewing
	Bur	<i>Quercus macrocarpa*</i>	W	181 (426)	41	129	43	37	Carter	2016	Mark Lewing
	Bur	<i>Quercus macrocarpa*</i>	W	172 (426)	38	118	45	36	Carter	2016	Mark Lewing
	PINE										
	Limber	<i>Pinus flexilis</i>	W	268 (375)	72	225	34	37	Silver Bow	1992, 2013	Peter Lesica
	Lodgepole	<i>Pinus contorta var. latifolia*</i>	W	236 (257)	35	110	121	21	Ravalli	2013	Mark Lewing, Jason Stewart, Trevor Mertins
	Lodgepole	<i>Pinus contorta var. latifolia*</i>	W	228 (257)	36	117	100	45	Missoula	2009, 2019	Steve Thompson
	Lodgepole	<i>Pinus contorta var. latifolia*</i>	W	221 (257)	36	113	96	46	Beaver- head	2018	Mark Lewing, Britt Herring
National Champ	Ponderosa	<i>Pinus ponderosa var. scopulorum*</i>	W	456 (456)	78	246	195	61	Mineral	1982, 2005, 2015	Donald M. Wood, Don Campbell
	Ponderosa	<i>Pinus ponderosa var. scopulorum*</i>	U	330 (456)	68	212	105	51	Ravalli	2013	Mark Lewing
	Western White	<i>Pinus monticola*</i>	W	424 (483)	75	237	178	35	Lincoln	1996, 2008, 2018	Alan Lane
	Whitebark	<i>Pinus albicaulis</i>	W	287 (299)	57	180	94	52	Flathead	1986, 2013	Tom Hope
	REDCEDAR										
	Western	<i>Thuja plicata*</i>	W	566 (922)	129	406	150	39	Lincoln	1981, 2013	Bruce Mieke
	Western	<i>Thuja plicata*</i>	W	552 (922)	118	369	175	30	Lincoln	1998, 2012	Alan Lane
	SAGEBRUSH										
	Big	<i>Artemesia tridentata</i>	W	33 (53)	5	17	13	11	Beaver- head	2012	Mark Lewing
	SERVICEBERRY										
	Western	<i>Amelanchier alnifolia</i>	W	49 (87)	5	14	30	19	Lincoln	2003, 2013	Martin Flanagan

Native Trees

COMMON NAME	SCIENTIFIC NAME	URBAN or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
SPRUCE										
Engelmann	<i>Picea engelmannii</i> *	W	409 (394)	72	227	173	35	Flathead	2014	Mark Lewing, Brandon Mertins
Engelmann	<i>Picea engelmannii</i> *	U	208 (394)	34	106	94	33	Missoula	2019	Mark Lewing
White	<i>Picea glauca</i>	W	291 (211)	61	191	95	19	Lincoln	2009, 2019	Mark Lewing
WILLOW										
Bebb	<i>Salix bebbiana</i>	W	94 (none)	15	48	40	24	Ravalli	2011	Mark Lewing
Booth	<i>Salix boothii</i>	W	84 (none)	15	48	31	20	Beaverhead	2018	Mark Lewing
Geyer	<i>Salix geyeriana</i>	W	44 (none)	3	10	31	13	Beaverhead	2018	Mark Lewing
National Champ Peachleaf	<i>Salix amygdaloides</i> *	W	176 (176)	35	110	50	64	Stillwater	2014	Martin Flanagan
National Champ Peachleaf	<i>Salix amygdaloides</i> *	W	172 (176)	36	114	49	34	Yellowstone	2016	Mark Lewing
Planeleaf	<i>Salix planifolia</i>	U	63 (none)	13	40	18	20	Madison	2018	Mark Lewing, Pamela Lewing
National Champ Sandbar	<i>Salix interior</i>	W	59 (59)	9	29	24	24	Ravalli	2011	Mark Lewing
Scouler	<i>Salix scouler</i>	W	115 (228)	26	82	26	27	Ravalli	2011	Mark Lewing
Whiplash or Greenleaf	<i>Salix lasiandra</i> var. <i>caudata</i>	W	124 (none)	22	69	45	39	Sweet Grass	2014	Martin Flanagan, Mark Lewing
Yellow	<i>Salix lutea</i>	W	36 (none)	4	14	18	17	Beaverhead	2018	Mark Lewing
YEW										
Pacific	<i>Taxus brevifolia</i> *	W	93 (250)	16	49	37	26	Lake	1992, 2012	Jerry and Caroline Berner
Pacific	<i>Taxus brevifolia</i> *	W	85 (250)	17	52	26	28	Lake	1992, 2012	Jerry and Caroline Berner
Pacific	<i>Taxus brevifolia</i> *	W	84 (250)	15	48	29	26	Ravalli	2017	Mark Lewing



Mark Lewing with National Champion Douglas-Fir, *Pseudotsuga menziesii* var. *glauca*, Sanders County

Non-Native Trees

COMMON NAME	SCIENTIFIC NAME	URBAN or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
APPLE										
Chief Plenty Coups Heritage	<i>Malus pumila</i>	U	75 (none)	13	41	28	23	Big Horn	2016	Mark Lewing
ASH										
Blue	<i>Fraxinau quadrangulata*</i>	U	149 (315)	29	91	47	42	Ravalli	2016	Mark Lewing
Blue	<i>Fraxinau quadrangulata*</i>	U	140 (315)	28	87	43	41	Ravalli	2016	Mark Lewing
European	<i>Fraxinus excelsior</i>	U	128 (none)	20	64	50	14	Flathead	2018	Fred Bicha, Josh Keene
White	<i>Fraxinus americana*</i>	U	159 (398)	28	87	58	57	Ravalli	2016	Mark Lewing
White	<i>Fraxinus americana*</i>	U	156 (398)	27	86	58	50	Ravalli	2016	Mark Lewing
BIRCH										
European White	<i>Betula pendula</i>	U	213 (219)	40	125	76	47	Ravalli	2016	Mark Lewing, Sylvia McNeil
BUCKEYE										
Ohio	<i>Aesculus galbra*</i>	U	97 (274)	19	61	29	26	Missoula	2014	Huck Woolsey, Finn Woolsey, Mike DeGrandpre
Ohio	<i>Aesculus galbra*</i>	U	89 (274)	17	52	31	25	Ravalli	2013	Mark Lewing
BUCKTHORN										
European	<i>Rhamnus cathartica</i>	ΔW	40 (60)	5	17	18	18	Lake	2013	Mark Lewing
BUNYAN										
Bunyan	<i>Bunya bunya</i>	U	59 (none)	5	17	38	15	Missoula	2019	Mark Lewing, Kelly Chadwick, Ken Stolz
BUTTERNUT										
	<i>Juglans cinerea</i>	U	168 (377)	31	97	56	59	Ravalli	2016	Mark Lewing
	<i>Juglans cinerea</i>	U	162 (377)	32	102	46	57	Ravalli	2016	Mark Lewing
CATALPA										
Northern	<i>Catalpa speciosa</i>	U	195 (327)	40	126	59	40	Yellowstone	2012	Steve Riley
CEDAR										
Arborvitae	<i>Thuja occidentalis*</i>	U	106 (312)	20	62	41	11	Ravalli	2016	Mark Lewing
Arborvitae	<i>Thuja occidentalis*</i>	U	101 (312)	17	53	45	12	Ravalli	2016	Mark Lewing
CHOCKECHERRY										
Canada Red	<i>Prunus virginiana</i>	U	101 (254)	18	58	33	38	Gallatin	2016	Vince Heier

Non-Native Trees

COMMON NAME	SCIENTIFIC NAME	URBAN or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
CRABAPPLE										
Siberian	<i>Malus baccata</i>	U	90 (none)	14	44	33	52	Ravalli	2016	Mark Lewing, Pamela Lewing
ELM										
English	<i>Ulmus procera</i>	U	193 (none)	37	115	64	58	Missoula	2019	Mark Lewing
Siberian	<i>Ulmus pumila*</i>	ΔU	290 (398)	56	177	92	83	Missoula	2017	Mark Lewing
Siberian	<i>Ulmus pumila*</i>	ΔU	287 (398)	57	183	88	63	Ravalli	2010	Mark Lewing
Siberian	<i>Ulmus pumila*</i>	ΔW	202 (398)	36	114	70	71	Missoula	2011	Mark Lewing, Peter Lesica
FIG										
Laurel	<i>Ficus microcarpa nitida</i>	U	74 (none)	7	23	42	36	Missoula	2019	Mark Lewing, Kelly Chadwick, Ken Stolz
Fiddleleaf	<i>Ficus lyrata</i>	U	67 (none)	6	20	40	28	Missoula	2019	Mark Lewing, Kelly Chadwick, Ken Stolz
FIR										
White	<i>Abies concolor*</i>	W	233 (359)	28	88	136	34	Sanders	2018	Mark Lewing, Landon Henderson
White	<i>Abies concolor*</i>	U	203 (359)	32	102	92	34	Sanders	2018	Mark Lewing, Pamela Lewing
GINKGO										
	<i>Ginkgo biloba</i>	U	145 (414)	23	73	61	45	Missoula	2019	Mark Lewing, Beth Judy, Kelly Chadwick
HACKBERRY										
Common	<i>Celtis occidentalis</i>	U	177 (398)	30	93	70	54	Yellowstone	2012	Mike Garvey, Fred Bicha
HAWTHORN										
European/ Oneseed	<i>Crataegus monoyna</i>	U	46 (none)	7	23	19	17	Ravalli	2016	Mark Lewing, Sue Falk
HONEYLOCUST										
Thornless Common	<i>Gleditsia triacanthos var. inermis</i>	U	178 (none)	29	90	74	55	Yellowstone	2012	Mike Garvey, Fred Bicha
HONEYSUCKLE										
Tartarian	<i>Lonicera tartarica</i>	U	55 (none)	9	29	21	21	Missoula	2018	Mark Lewing
HORSECHESTNUT										
	<i>Aesculus hippocastanum</i>	U	244 (341)	54	169	62	52	Ravalli	2014	Mark Lewing
LARCH										
European	<i>Larix decidua</i>	U	161 (294)	28	89	62	39	Missoula	2019	Mark Lewing, Kelly Chadwick, Kim Briggeman

Non-Native Trees

COMMON NAME	SCIENTIFIC NAME	URBAN or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
LILAC										
Common	<i>Syringa vulgaris</i>	U	54 (none)	9	28	23	10	Ravalli	2013	Mark Lewing
Japanese Tree	<i>Syringa reticulata</i>	U	122 (175)	26	83	32	29	Missoula	2014	Huck Woolsey, Finn Woolsey, Bridget Tinsley, Jamie Kirby, Dennis Bragg
LINDEN										
American	<i>Tilia americana</i>	U	241 (399)	42	136	94	42	Ravalli	2010	Mark Lewing
Littleleaf	<i>Tilia cordata</i>	U	243 (325)	46	145	81	68	Missoula	2014	Huck Woolsey, Finn Woolsey
LOCUST										
Black	<i>Robinia pseudoacacia*</i>	ΔU	261 (443)	53	172	73	63	Ravalli	2010	Mark Lewing, Pamela Lewing
Black	<i>Robinia pseudoacacia*</i>	ΔU	249 (443)	57	182	54	53	Ravalli	2010	Mark Lewing
Bristly	<i>Robinia hispida</i>	U	33 (none)	4	12	18	13	Lake	2015	Mark Lewing, Trevor Mertins
Clammy	<i>Robinia viscosa</i>	U	60 (60)	9	27	27	25	Ravalli	2016	Mark Lewing, Sue Falk

National
Champ

Ginkgo, *Ginkgo biloba*, Missoula County



Non-Native Trees

COMMON NAME	SCIENTIFIC NAME	URBAN or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
MAPLE										
Amur	<i>Acer ginnal</i>	U	57 (100)	10	30	21	22	Ravalli	2016	Mark Lewing
Norway	<i>Acer platanoides</i>	ΔU	288 (288)	63	203	68	67	Ravalli	2010	Mark Lewing, Pamela Lewing
Red	<i>Acer rubrum</i>	U	140 (365)	26	82	47	44	Missoula	2014	Huck Woolsey, Finn Woolsey
Silver	<i>Acer saccharinum</i>	U	359 (412)	78	248	94	70	Ravalli	2010	Mark Lewing
Sugar	<i>Acer saccharum*</i>	U	200 (364)	38	120	62	55	Missoula	2019	Mark Lewing, Kelly Chadwick, Kim Briggeman
Sugar	<i>Acer saccharum*</i>	U	198 (364)	40	126	60	49	Ravalli	2013	Mark Lewing, Lindsey Lewing, Krysta Mertins
Sycamore	<i>Acer pseudoplatanus</i>	U	197 (none)	37	117	65	15	Flathead	2018	Fred Bicha, Josh Keene
MOUNTAIN-ASH										
European	<i>Sorbus aucuparia*</i>	ΔU	143 (143)	29	91	43	37	Flathead	2013	Mark, John and Paul Lewing
European	<i>Sorbus aucuparia*</i>	ΔW	84 (143)	9	29	49	22	Missoula	2015	Mark Lewing
European	<i>Sorbus aucuparia*</i>	ΔW	80 (143)	10	30	44	24	Missoula	2015	Mark Lewing
European	<i>Sorbus aucuparia*</i>	ΔW	72 (143)	10	31	35	22	Missoula	2015	Mark Lewing
Oakleaf	<i>Sorbus x hybrida</i>	U	150 (none)	32	101	38	44	Flathead	2016	Mark, John and Paul Lewing
OAK										
English	<i>Quercus robur</i>	U	207 (382)	40	125	66	64	Missoula	2019	Mark Lewing, Kelly Chadwick, Kim Briggeman
Oregon White	<i>Quercus garryana</i>	U	160 (408)	32	101	44	60	Ravalli	2016	Mark Lewing
Pin	<i>Quercus palustris</i>	U	198 (307)	35	111	76	45	Missoula	2014	Huck Woolsey, Finn Woolsey
Red	<i>Quercus rubra</i>	U	246 (456)	53	167	66	50	Missoula	2014	Huck Woolsey, Finn Woolsey
Swamp white	<i>Quercus bicolor</i>	U	170 (399)	30	94	64	50	Yellowstone	2012	Steve Riley
PINE										
Eastern White	<i>Pinus strobus</i>	U	213 (390)	36	114	88	44	Missoula	2019	Mark Lewing
Rocky Mtn. Bristlecone	<i>Pinus aristata</i>	U	114 (233)	19	61	45	33	Missoula	2019	Mark Lewing, Phillip Williams
Scotch	<i>Pinus sylvestris</i>	U	181 (241)	32	100	73	33	Missoula	2013	Mark Lewing, Pamela Lewing

National Champ

National Champ

Non-Native Trees

COMMON NAME	SCIENTIFIC NAME	URBAN or WILDLAND	POINTS	DBH	CIRC.	HEIGHT	SPREAD	LOCATION	YEAR	NOMINATOR
POPLAR										
Carolina	<i>Populus canadensis</i>	U	533 (none)	123	385	123	98	Lake	2018	Mark Lewing, Pamela Lewing
Lombardy	<i>Populus nigra var. italica</i>	U	305 (none)	75	236	65	14	Ravalli	2016	Mark Lewing, Pamela Lewing, Thayer Jacques
 White or Silver	<i>Populus alba</i>	ΔU	415 (415)	96	301	92	86	Gallatin	2014	Edie Dooley
RUSSIAN-OLIVE										
	<i>Elaeagnus angustifolia*</i>	ΔU	183 (none)	41	130	42	42	Missoula	2016	Mark Lewing
	<i>Elaeagnus angustifolia*</i>	ΔU	175 (none)	38	119	42	55	Sanders	2015	Mark Lewing, Trever Mertins, Leo & Sarah Pate
SMOKETREE										
American	<i>Cotinus obovatus</i>	U	46 (195)	6	20	23	11	Ravalli	2017	Mark Lewing
SPRUCE										
Black Hills	<i>Picea glauca Densata</i>	U	172 (none)	34	108	54	42	Missoula	2018	Mark Lewing
Blue	<i>Picea pungens*</i>	ΔU	233 (323)	34	109	116	31	Ravalli	2010	Mark Lewing
Blue	<i>Picea pungens*</i>	ΔU	231 (323)	35	113	110	31	Ravalli	2010	Mark Lewing
Norway	<i>Picea abies*</i>	U	253 (357)	45	142	98	53	Missoula	2019	Mark Lewing
Norway	<i>Picea abies*</i>	U	250 (357)	39	121	120	35	Ravalli	2014	Mark Lewing
SUMAC										
 Staghorn	<i>Rhus typhina</i>	U	69 (69)	14	44	19	26	Ravalli	2014	Mark Lewing
Tiger Eye	<i>Rhus typhina lacinata</i>	U	29 (none)	4	12	14	11	Lake	2018	Mark Lewing, Pamela Lewing,
SYCAMORE										
American	<i>Platanus occidentalis</i>	U	200 (578)	41	128	64	33	Ravalli	2013	Mark Lewing, Lindsey Lewing, Krysta Mertins
WALNUT										
Black	<i>Juglans nigra</i>	U	216 (none)	44	138	61	70	Missoula	2014	Mark Lewing, Bruce Maclay, Mary Maclay
WILLOW										
 Crack	<i>Salix fragilis</i>	ΔU	461 (461)	124	388	55	72	Ravalli	2011	Mark Lewing
Weeping	<i>Salix babylonica</i>	ΔU	292 (411)	72	226	54	49	Ravalli	2014	Mark Lewing
White	<i>Salix alba</i>	ΔU	420 (477)	103	328	77	61	Ravalli	1995, 2009	Mark Lewing, Pamela Lewing, Rosemary O'Neil

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