(Central NY is defined here as follows: Onondaga, Madison, Oneida, Cortland, Oswego, Cayuga (north of Thruway and on shore of Skaneateles Lake) Counties)

PRIMARY OLD GROWTH FOREST

Green Lakes State Park Hemlock-Hardwood, Hemlock-Tuliptree Cove@
Onondaga Co. Lakeside White Cedar
about 1000 acres old growth
UPLAND, LAKESHORE
Tuliptree Cathedral - possibly only Hemlock-Tuliptree Cove in
upstate NY and tallest forest in central NY with Tuliptrees to 145 ft.
The Tuluptree Cathedral covers about 6 acres; the bulk of the old
growth is dominated by Sugar Maple, and is one of the largest
old growthg forests in the Northeast outside the Adirondacks, and one
of the largest old growth Sugar Maple forests near any major city in

the USA, and this old growth forest contains 2 unique meromictic lakes

Wizard of Oz Memorial Oak Grove (North Syracuse) Oak Onondaga Co. 6 acres old growth LOWLAND owned by North Syracuse Central School District, canopy trees to 200+ years old. This forest is the most likely inspiration for L. Frank Baum's world-famous Great Forest of Oz as Baum grew up near this oak grove.

North Syracuse Cemetery Oak Grove
Onondaga Co. 1.5 acres
LOWLAND owned by North Syracuse Cemetery Association, Oaks to over
200 years old, extremely high density of large trees

Liverpool School Mpale Maple Grove (Clay)
Onondaga Co. 11 acres Northern Hardwood
LOWLAND owned by Liverpool Central School District
Exceptionally large old growth Sugar Maple, Red Maple, Beech,
Shagbark Hickory

Selkirk Shores State Park

Oswego Co. 8 acres old growth

UPLAND between Day Use Area + Campground, only original old growth
forest known in Oswego Co.

Nelson Swamp White Cedar Swamp Madison Co. owned by NYSDEC contains White Pine to 470 years old LOWLAND

S.U.N.Y. Morrisville Hemlock Groveb Hemlock-Hardwood Madison Co. 3? acres Hemlocks over 300 years old UPLAND

Hemlock Island Hemlock acreage uncertain Caytga Co. LAKESORE SW shore Skaneateles Lake

SECONDARY OLD GROWTH FOREST

Sacred Grove, Von Steuben Memorial State Historic Site

Oneida Co. 5 acres Northern Hardwood, highly disturbed

UPLAND with nearly all big trees removed over past

100+ years

Brewerton Oak Grove Oak 1 acre site destroyed by owner 1998 Onondaga Co. used to be magnificent stand of White Oak-Red Oak - UPLAND big trees but few other old growth signs, yet some of these trees could have been from the original forest. The largest tree, a forest-grown Red Oak 53.1" dbh was spared (at least as of 2003).

Camillus Maple Forest Northern Hardwodd 38 acres
ONondaga Co. owned by NYSDEC, core of Camillus Unique Area,
UPLAND dominated by Sugar Maple

Pratts Falls County Park Hemlock-Northern Hardwood Onondaga Co. acreage of older forest uncertain UPLAND

Beaver Lake Nature Cemter Hemlock-Nortern Hardwood Onondaga Co. acreage of older forest uncertain, owned by Onondaga Co. LOWLAND, LAKESORE at least 2 areas of older forest, including Beech Grove

Curtiss-Gale State Wiuldlife Mgmt. Area Hemlock-Hardwood Oswego Co. 10 acres older forest owned by NYSDEC south of Fulton UPLAND established after most likely natural disturbance after 1800, possible site of opening scenes in J. F. Cooper's Pathfinder

CLIFFSIDE OLD GROWTH

Chittenango Falls State Park White Cedar Madison Co.

Clark Reservation State Park White Cedar Onondaga Co.

OPEN COLLECTIONS OF OLD GROWTH TREES (not forests)

Hamilton College, Clinton mixed species, some old growth Oneida CO.

Shackelton Point (Oneida Lake) Sugar Maple, few Red Oak Madison Co.

Black Oak
Oakwood Cemetery, Syracuse White Oak, Red Oak, Onondaga Co.

Long Branch Park, Geddes White Oak, Red Oak, Black Oak Onondaga Co.

Open Collections of OLd Growth Trees continued:

Recreation Park, Fulton Red Oak Oswego Co. (on Lake Neahtawanta)

North Bay Campground, Fulton Red Oak Oswego Co. (on Lake Neahtawanta)

Mt. Adnah Cemetery, Fulton huge Black Oak, some White Oak, White Pine Oswego Co.

Tom Howard Central NY Old Growth Survey 1/20/2008

Tree Age Data

Cored Trees(with increment borer)

	Dbh(in.)	Core Age	Tree Age as of 12/2007
White Oak 1	29.8	111	199 (1808)
White Oak 2	27.9	124*	147 (1860)
White Oak 3	31.2	102	161 (1846)
White Oak 4	22.6	111*	132 (1875)
Red Oak 5 fell 9/98	56.5	77	230 (1770)
Red Oak 6	47.7	104	147 (1860)
Black Oak 7	34.7	62	137 (1870)
White Oak 8	24.9	120	187 (1820)
Black Oak 9 dead 2007	19.3	120*	137 (1870)
White Oak 10 dead 2007	18.9	110*	127 (1880)
White Oak 11	26.2	139	179 (1828)
Black Oak 12	29.2	101	142 (1865)
White Oak 13	28.3	94	194 (1813)
Red Oak 14	31.6	80	127 (1880)
White Oak 15	25.2	61	160 (1847)
Tupelo 16	18.9	183	237 (1770)
Black Cherry 17	14.3	82	134 (1873)
Sassafras 18	12.3	96*	112 (1895)
Red Oak 19	38.4	41	142 (1865)
White Oak 20	36.5	123*	147 (1860)
Black Oak 21 dead 2007	30.9	55	132 (1875)
Red Oak 22	25.6	77	139 (1868)
White Oak 23	18.5	134#	152 (1855)

^{* =} core reached pith or center of growth. Tree ages are based on extrapolations from short cores, due to short length of increment borer and extractor. Trees were cored from Feb. 1997 - Jan. 2002.

Trees felled or salvaged Feb. 1999

	Diameter(in.)	Rings	
White Oak Red Oak Red Oak Red Maple Red Oak red Maple White Oak Black Oak	20 26 25 18.5 33 19 13 23.5 23 26 30	130 130 130 125 100 105 105 115 142 130 72 87	log log stump stump log log log log
Red Oak	30+	98	10 g

Wizard of	Oz Oak Grove Ag	e Data Fel	o. 1999 c	On+	•
Red Oak White Oak Red Maple White Oak Red Maple Black Oak Sassafras Sassafras Sassafras		30+ 20+ 20+ 30 24 29.5 15.2	105 115 105 140 121 81 132 95 110+	log log log log stump stump stump stump	+ log
	Other Age I	ata:			•
					Rings
5/5/2002	White Oak branch f		snag		110
	Red Maple snag stu	mp			115
3/25/2003	Red Maple stump 5. White Oak snag stu	5" radius mp			150 150+
5/6/2003 5/7/2003	Black Chaerry sapl Red Maple long-dea 40 ft. above ba	d 1og 2" rad	us dius		85 80
5/25/2003	Red Maple pole size Tupelo stump radius				70 154
8/17/2003 10/ 2 8/2003	Chestnut stump rad: White Oak long-dead	ius 2.5" I log radius	s 6"		83 144
10/28/2003	Black Oak cross-sec from Poe Tree ra	idius 4"			100
	(tree is still aliv	re, Onondaga	Co. Can	ochamp. 49.	6" dbh)
11/27/2003	Red Maple radius 7" White Oak snag stum	np radius 10	n .		80 220

Age Estimates for Living Trees:

	average	Max.
White Oak Red Oak Black Oak Red Maple Tupelo Sassafras Black Cherry White Pine	160 135 135 150 180 115 130+	200+ 150 170 (Poe Tree) 200 240 150 190+ 150

Tom Howard Friends of Wizard of Oz Memorial Oak Grove Central NY Old Growth Survey Heights measured 4/29/2006 by Robert Henry and Tom Howard with clinometer and 100 foot tape measure - great pains were taken to make sure that these measurements are as accurate as possible and that the topmost twigs were seen and mesured correctly.

Tree		Dbh(in.)	<pre>Height(ft.)</pre>
Baum Red Oak	And the second s	47.7	124
tallest tree in North so far north	h Syracuse, possibly	tallest of	its sp ecies for
Poe Black Oak		49.6	110
Onondaga County champ species for so far no	p, possibly tallest orth	NY, Possibly	tallest of its
White Oak		29.6	114
White Oak #2 (on broch	are core list)	27.9	106
White Oak		20.2	110
Gage White Oak		32.8	104
Muir White Oak		36.5	112
Red Maple		17.9	119
possibly tallest NY,	possibly tallest of	its species	
Sassafras		18	74
Onondaga County champ			
Shakespeare White Oak	* .	28.3	96
White Pine		31.2	96

Summary of Height Measurements of 4/25/98 (by a team 1ed by old growth expert Robert Leverrett), 5/5/2002 (by ateam 1ed by Fred Breglia of NY Old Growth Forest Association - heights 4/25/98,5/5/02 taken with laser rangefinder and clinometer), 4/24/2004 (by Robert Henry and Tom Howard with clinometer and 100 foot tape measure), 4/29/2006

Tree	with the second		Dbh	Cbh(ft.)	Height	Date
	Oak #11 brochure cor Oak	e list,	26.2 possibl 21	y tallest	114 White 108	5/5/02 Oak Upstate NY 5/5/02
White (White (White (Gage Wh	Dak Dak#4 Dak #15 Dak Dak Dak #2		28.3 24.8 22.6 25.2 22.9 29.6 27.9 20.2 32.8 3655	5.9 6.6 6 7.8 7.3 5.3	109 110 105 111 112 111 106 110 104 112	4/24/04 " " 4/29/06 " " "
Shakesp	peare White n White Oak	0ak	28.3 24.9		96 102	4/25/98

Baum Red Oak tallest tree North Syrac so far north	47.7 use, p	12.5 ossibly	ta]	124 Llest of it	4/29/06 s species
Red Oak Red Oak #5	44.4	11.6		103	4/25/98
tree fell 9/7/98	56.5	14.8		88	4/25/98
Poe Black Oak	40.0				
Poe Black Oak possibly tallest Ny noon	49.6	13	_	110	4/29/06
possibly tallest NY, poss Black Oak #21	srota f	allest	of	its species	5 00 fam
Man I	50.5	0 • 1		103	4/24/04
JFK Red Maple		8.5 9.2		100	"
Onondaga County champ	00	3 • 2		104	4/25/98
Red Maple	17.9	4.7		119	1/20/06
rootivi callest NY. Doss	ibly t	allest	of	its species	4/29/06
Red Maple	25.4	6.6	-	110	so far north
					4/24/04
TOT CDG MEDIE	20.5	5 4		103	5/5/02
	<i></i>	h 4		^ =	4/24/04
possibly tallest of its s White Pine	negiog	J.0		97	4/24/04
White Pine	51 5	SO IAP	noı	rth in USA	
Beech		8.2			4/29/06
Sassafras #18	14.2	3.8		83	4/24/04
Sassafras #18 possibly tallest Upstate	12.3	3.2		82	4/24/04
possibly tallest Upstate I far north in USA	NY, pos	ssibly t	ta11	est of its	species so
Cana Cara	18				4/29/06
Unondaga County champ				74	1/0 1/00
Anne Frank Tupelo	18 0	4 0		00	4/24/04
possibly tallest NY, possi	10.9 hir 4.	4.9		80	TIFTIOT
possibly tallest NY, possitree est. 230+ years old	rnīā fg	rrest O) I i	ts species	so far north
Yellow Birch				62	4/24/04
				V 2	4/24/04

Tallest of each species:

Red Oak	124
Red Maple	119
White Oak	114
Black Oak	110
Black Cherry	97
White Pine	96
Beech	83
Sassafras	82
Tupelo	80
Yellow Birch	62

Possibly	tallest	in	NY	_	Blac	ck Oa	ak	110
					Red	Mapi	Le	119
_	•				Tupe	910		80
Poccihi	A-11.		_					

Possibly tallest Upstate NY - White Oak White Oak 114 Sassafras 82

Possibly tallest of species so far north:

-	
Red Oak	124
Black Oak	110
Red Maple	119
Tupelo -	80

Possibly tallest of species so far north in USA:

(there are taller in Canada)
Black Cherry

Nowhere else in the world do so many major tree species reach latitude height records on such a small site.

97

82

Trees greater than or equal to 30 in. dbh:

Sassafras

It is significant that this grove which most likely inspired L. Frank Baum to create the Great Forest of Oz has, as its tallest tree, the Red Oak dedicated to him.

Tom Howard Friends of Wizard of Oz Memorial Oak Grove 5./7/2006

pbh2 drawter at breast heast heast heast

Liverpool School Maple Grove, Wetzel Rd. Elementary School, Clay, NY 11/25/2007

On Nov. 25, 2007, Jack Howard and I visited the spectacular old growth forest on this cold sunny day. This is the oldest forest in the northern suburbs of Syracuse and its core is 11 acres of Old Growth Northern Hardwood Forest dominated by Sugar Maple, Beech, and Red Maple. On this day the air felt pure, permeated with the delightful scent of freshly-fallen leaves. Sugar Maple and other species average over 200 years old with the oldest Sugar Maples possibly 350 years old.

We examined the following trees:

Beech filled with golden leaves 35" dbh

Sugar Maple - largest tree in Grove, ancient, craggy, with shaggy bark, spiral grain, est. 122 ft. tall, one of the largest forest-grown Sugar Maples in Northeast 51.3" dbh (13.4 ft. cbh) most likeluy Onondaga County champ.. 2 large most likely ancietn scars could habe been made by Indians in 18th cent. to mark trails ("Indian Paint Tree"), and could have been a "witness tree" scarred by Military Tract surveyors c.1790 as a Sugar Maple witness tree stood at this spot. This tree is possibly 350 years old.

Sugar Maple 39.2" dbh, massive all the way up

Bitternut Hickory, possibly 120 ft. tall, 26.9" dbh

Beech 27.9" dbh

Sugar Maple 45.6" dbh, massive buttress roots, burls, spiral grain

Basswood arching over paved path 21.4" dbh

Onondaga Co. Champion Red Maple 36.4" dbh (co-champ with JFK Red Maple in Wizard of Oz Oak Grove, North Syracuse)

Shagbark Hickory, northwest edge, 40.5" dbh, possible Onondaga Co. champion

Also at north edge cross-section of fallen Shagbark Hickory branch 156 rings, radius 5", 70 ft. above base of tree tree est. 200-250 years old

This old growth growe is a priceless educational and ecological resource in the midst of the crowded northern suburbs of Syracuse.

Tom Howard Central New York Old Growth Survey 1/20/2008

Liverpool School Maple Grove, Wetzel Rd. Elementary School, Clay, NY

Tree Age Data

		Rings
11/18/98 2/26/99	Sugar Maple stump of fallen tree 34.4" dbh	133
2/20/99	Sugar Maple stump radius 6.1" Sugar Maple stump 3.3 ft. diameter	100 200+
4/13/2001 4/14/2002	Sugar Maple stump of dead tree 1.2 ft. radius	210
8/17/2002 8/20/2002	Beech cross-section from 40 ft. up 8" radius	145
	Red Maple branch cross-section from 40 ft. up, 5" radius	150+
	Sugar Maple cross-section of fallen branch 7" radius	176
4/26/2003	Beech log cross-section from high in tree Basswood log cross-section 40 ft. above base, .6 ft. radius	110 170
•	Basswood log cross-section 38 ft. above base, .55 ft. radius	242
11/25/2007	Shagbark Hickory branch cross-section 70 ft. above base, 5" radius	156

Tom Howard Central NY Old Growth Survey 1/20/2008

Oldest Trees of Onondaga County, NY. (this doc. modeled after AFER website Ontario's Oldest Trees)

* = extrapolated age

Basswood dead 350* Liverpool School Maple Grove Basswood dead 242 "
Dasswood dead 242 "
Beech dead 240 Green Lakes
White Ash dead 210 "
Black Gum living 240* Wizard of Oz Oak Grove, N. Syr.
Black Gum living 183 "
Black Oak living 165* " (Poe Tree)
Black Oak deed - living 125 " (Robinson Trop)
Black Oak living 185* North Syr. Cemetery Oak Grove
Red Oak dead 215 Green Lakes
Red Oak living 180* North Syr. Cemetery Oak Grove
White Oak living 270* North Syr. Cemetery Oak Grove
White Oak dead 240 Oakwood Cemetery, Syracuse
Red Maple dead 200* Wizard of Oz Oak Grove, N. Syr.
Sugar Maple dead 266 Green Lakes
Sassafras living 150* Wizard of Oz Oak Grove, N. Syr.
Sassafras dead 137 "
Tuliptree living 200+* Green Lakes
Tuliptree living 160 Green Lakes

Tom Howard Central NY Old Growth Survey 1/21/2006

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Tallest Trees in New York State (heights in feet)

White Pine Red Pine	160.00 110.0	Elders Grove, Adirondacks Floodwood-rollins Pond,
NO TENO	110.0	Adirondacks
Red Spruce	105.0	Peavine Swamp, Adirondacks
Balsam Fir	95.6	Elders Grove, Adirondacks
Larch	100.0	Peavine Swamp, Adirondacks
Hemlock	126.0	Kaaterskill Falls
Tuliptree	156	Zoar Valley
White Ash	140.8	
White Oak	121.6	
Red Oak	140.3	Zoar Valley
Black Oak	110	Wizard of Oz Oak Grove, North
		Syracuse
Black Oak	106.3	Welwyn Preserve, Long Island
Beech	130.1	Zoar Valley
Sycamore	155	Zoar Valley
Black Locust	126.6	Old Maid's Woods, Schenectady
Pignut Hickory	129	FDR Estate, Hyde Park
Bitternut Hickory	136.4	Zoar Valley
Mockernut Hickory	103.1	Vanderbilt Estate, Hyde Park
Black Walnut	124.1	Zoar Valley
Sugar Maple	127.6	Zoar Valley
Red Maple	119.1	Zoar Valley
Red Maple	119	Wizard of Oz Oak Grove, N. Syracuse
Black Cherry	131.1	Lily Dale Grove, Chautauqua Co.
Cucumber Magnolia	115.5	Long Point State Park
American Basswood	128.7	Zoar Valley
American Elm	120.6	Zoar Valley
Red Elm	120.4	Zoar Valley
Cottonwood	134.4	Zoar Valley
Sassafras	107.3	Welwyn Preserve
Black Tupelo	80	Wizard of Oz Oak Grove, N. Syracuse
Black Birch	107.3	Welwyn Preserve
Yellow Birch	101.1	Zoar Valley

All heights except Floodwood-Rollins Pond, Peavine Swamp, Wizard of Oz Oak Grove are from Eastern Native Tree Society website. Floodwood-Rollins Pond and Peavine Swamp are from championtrees.org. Heights in Wizard of Oz Oak Grove were measured by Robert Henry and Tom Howard using clinometer; great care was taken to make these height measurements as accurate as possible.

Tom Howard Friends of Wizard of Oz Memorial Oak Grove Central NY Old Growth Survey 2/19/2007