

Petals, Pollinators,
and Pocket
Forests:
Nature's Magic in
Every Inch

Unlocking Nature's
Potential with the
Mini-Forest Method



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Daughters of the American
Revolution Conservation Chair



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The Science of Forest Intelligence

Trees Are Not Passive

We tend to think of plants as
passive. They stand there.

They photosynthesize. They wait.



What if trees could talk?

What if they helped each other grow, raise young, and care for the sick?

Welcome to the hidden life of trees in the forest.



The Forest Network

Trees communicate through underground mycorrhizal fungi

Share nutrients, warn of danger, support offspring and each other

A cooperative system based upon reciprocity—
not competition was happening

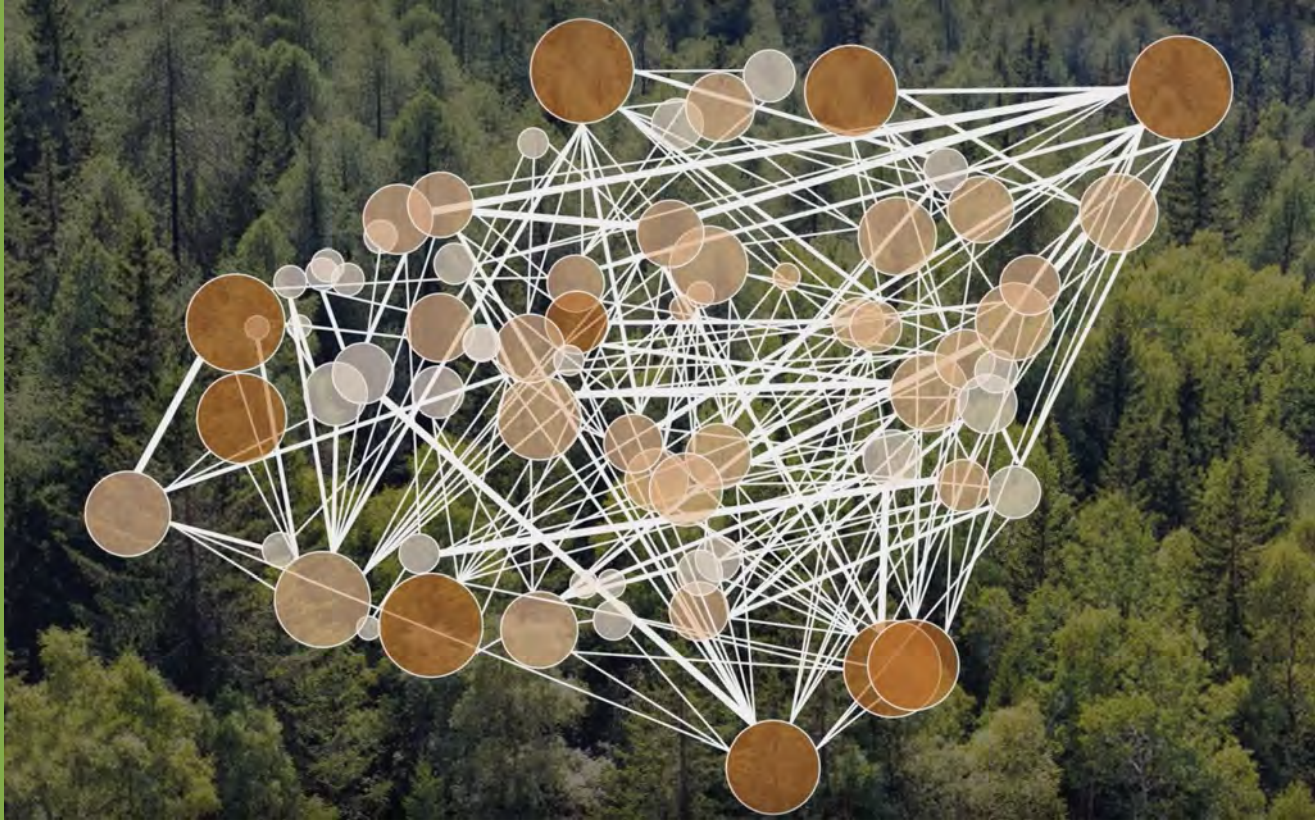


Mother Trees

“Finding the Mother Tree”
Dr. Suzanne Simard



The Wood Wide Web

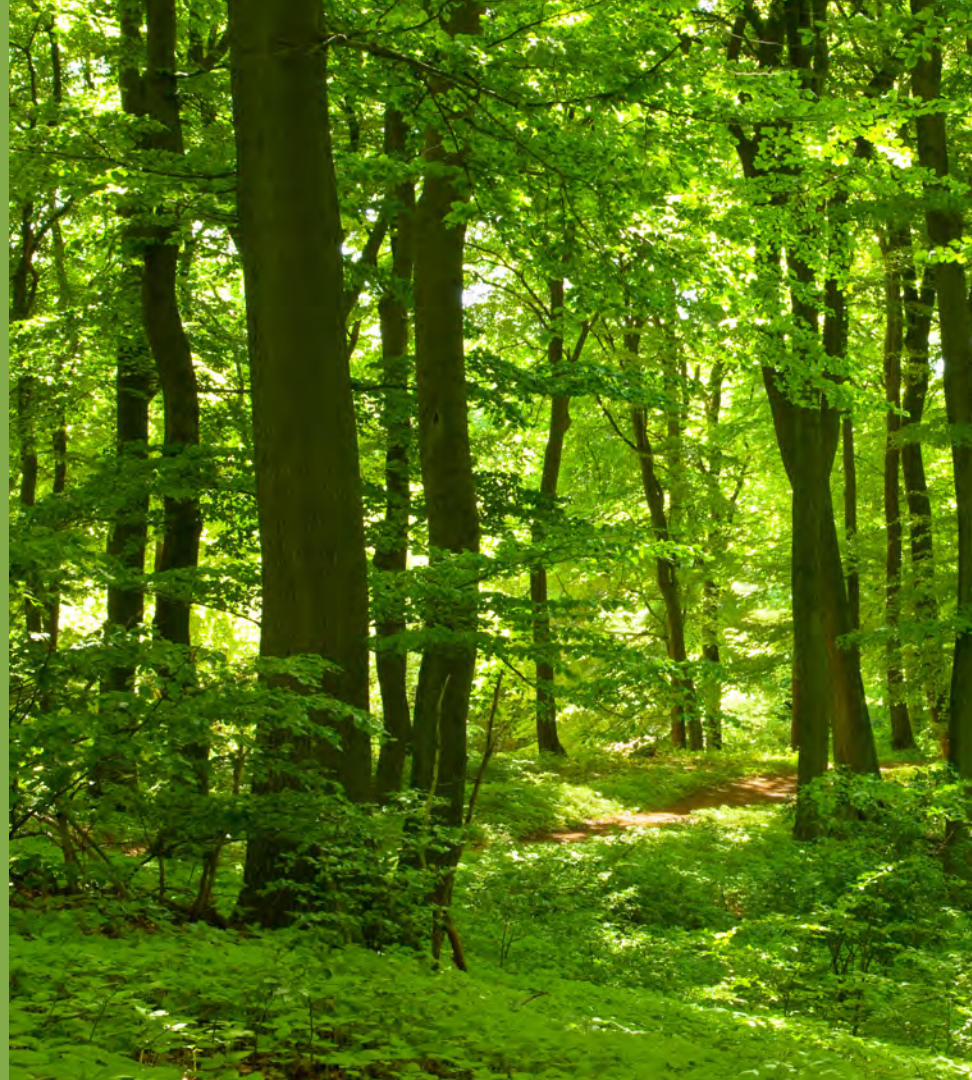


“When the Forest Breathes”

Dr. Suzanne Simard



Reciprocity
In Nature Relies
on Cooperation
Over Competition



Why This Changes Everything for Restoration



Who Was Akira Miyawaki?

Dr. Akira Miyawaki was a
Japanese botanist and
plant ecologist



The Core Principles

1. Use native species Only
2. Utilize dense planting
3. Use natural Layering

You're not planting a tree. You're planting a community and trusting it to organize itself.

The Numbers

10x
growth

30x
denser

100x
biodiverse

100%
organic



Why Urban Spaces?

Some foresters have raised legitimate concerns about the Miyawaki method — and those concerns deserve respect, not dismissal.



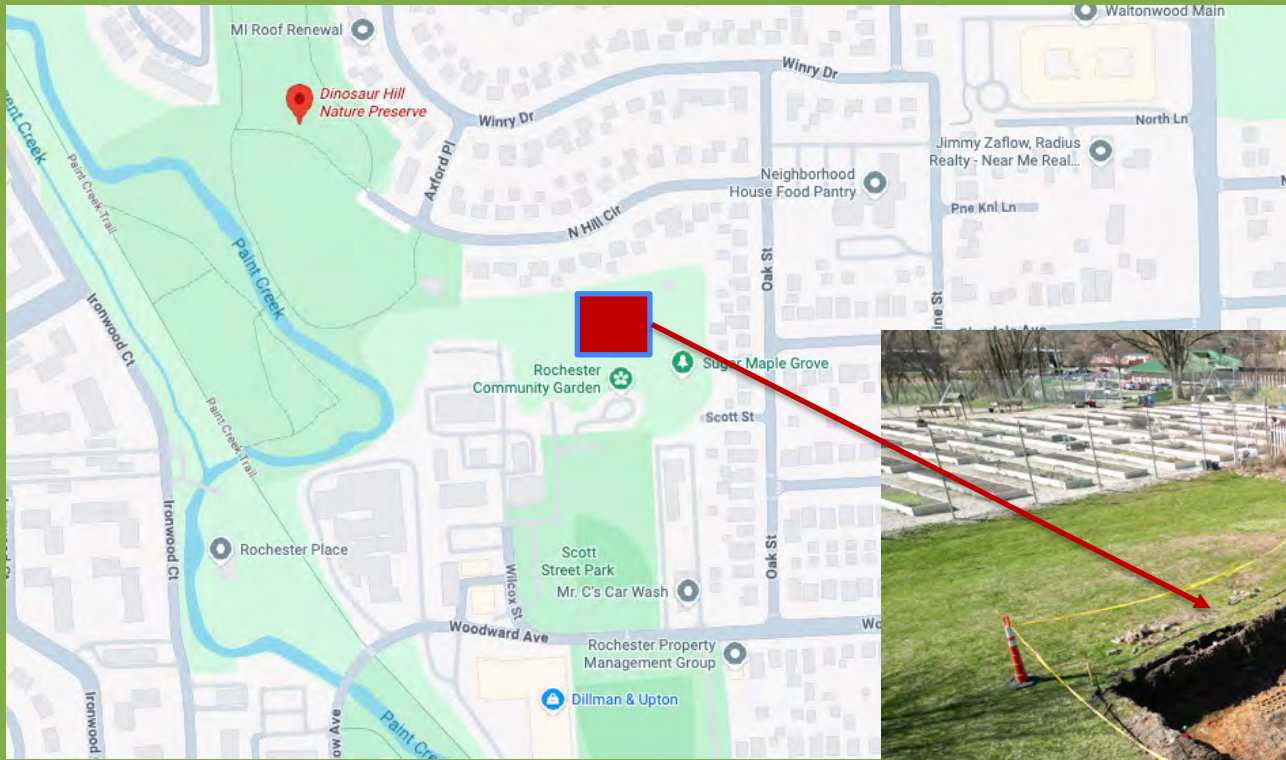
Rochester's Mini-Forest

Working with the City of Rochester,

an old garbage dump was chosen—it had compacted and depleted soil. Not a restoration site.

A reclamation site.





1,000 Square Feet

The Forester's Grid

One of the things I'm most proud of in this project is the planning rigor behind it.



The City of Rochesters' Mini-Forest Project Steps

1. Obtain City approval
2. Create a Budget
3. Find the funds
4. Partner w/ DPW and Parks Dept.
5. Find the land
6. Select native species
7. Create the design
8. Prepare the soil
9. Create a maintenance plan
10. Recording data/Monitoring
11. Community engagement
12. Let nature do it's work

City Approval & Funding



community foundationSM
Greater Rochester



First State

Your Hometown Bank



Rooted in Oakland's Past

Before European settlement, Oakland County sat at the meeting point of two great forest communities — the Beech-Maple forests of the north and the Oak-Hickory woodlands of the south.

Combination of 290 Native Trees, & Shrubs Species Selection

- 12 Varieties
 - 52 Canopy Trees
- 11 Varieties
 - 106 Understory
- 11 Varieties
 - 132 Shrubs
- Native plants included milkweed
- 95% were indigenous of Oakland County

The Layers in Practice

Canopy layer

Tree layer

Sub-tree layer

Shrub layer



Keystone Trees

“Essential members of every landscape.”

Doug Tallamy
University of Delaware

Keystone trees, shrubs & plants host the most caterpillars & species than others

Native Host Plants!

www.nwf.org/NativePlantFinder

Keystone Species Trees in the Mini-Forest

- Bur Oak Tree
 - 486
- Black Cherry
 - 340
- Birch
 - 284
- Maple
 - 238
- Hickory
 - 213
- Basswood
 - 132
- Black Walnut
 - 125

An Oak Tree Supports 550+ Species



Planting Day, May 3 2025



Planting Day



Planting Day



Ribbon Cutting





Six Weeks Later









BENEFITS:

Storm water Management

- +25,000–30,000 gals Annual Rainwater Absorption
- Dense root systems and layered vegetation improve infiltration reduce runoff

Carbon Sequestration

- +450–700 lbs CO₂/year (Initial Sequestration)
- +1,800–2,000+ lbs CO₂/year (Year 10+)
- High-density native planting rapidly captures and stores carbon

Temperature Reduction

- Cooling effect: lowers temps by 5–10°F

Biodiversity Boost

- Pollinators: Supports 500+ insect species including bees and butterflies
- Habitat: Provides food and shelter for birds
- Soil Health: Encourages microorganisms, improves nutrient cycling

Nature is a Tool For Health & Wellness

Forest bathing is the practice of slowing down and mindfully spending time among trees—engaging the senses.

Spending time in forests has been shown to:

- Reduce stress & anxiety
- Lower blood pressure and heart rate
- Improve mood, focus and mental clarity
- Support better sleep
- Strengthen immune function through exposure to natural tree compounds

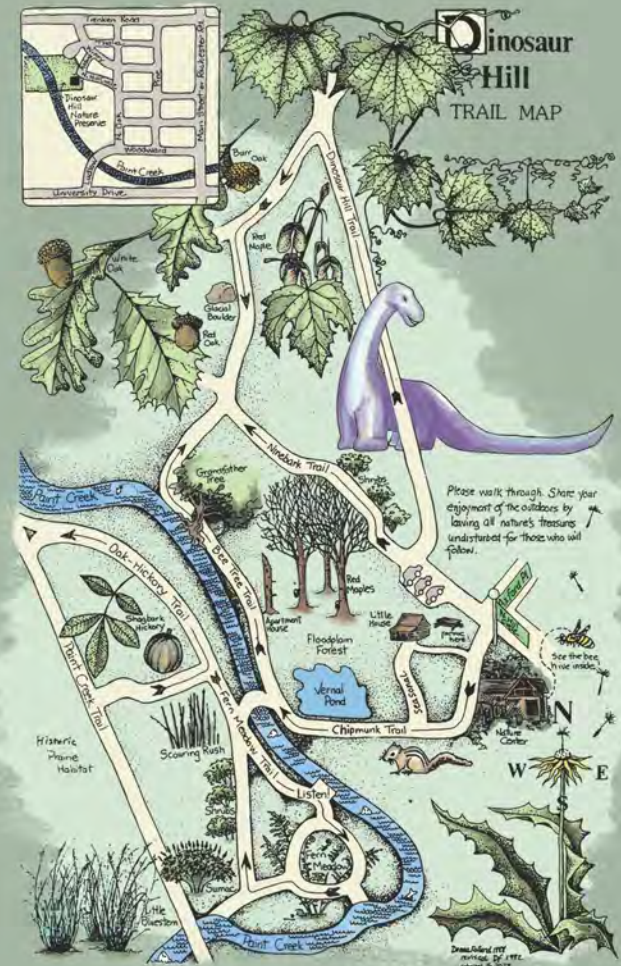
Simply being present is enough.
No hiking, no fitness goals—just connection.

From Mini-Forest to Mature Forest

A Living Wellness Corridor

Our Mini-Forest is just north of Dinosaur Hill Nature Preserve

- 13 Acres off of the Paint Creek Trail
- Opportunities for:
 - Walking
 - Pausing
 - Observing
 - Breathing



Bring It Home

You don't need a former garbage dump or a city partnership to start a mini-forest.

The Miyawaki method works at **100 square feet and up** — a side yard, a back corner, a sunny edge along your property line.

Sunny Corner Grouping

Pollinator Corner

(sunny, 100–200 sq ft)

- One canopy tree:
 - Black Cherry (40'—80')
- Add 1-2 understory:
 - Serviceberry (15'–25')
 - Redbud (20'–30')
 - Flowering Dogwood (15'–25')
- Fill with shrubs (*plant 3 or 4*)
 - Spicebush (6'–12')
 - Buttonbush (6'–12')
 - Bush Honeysuckle (3'–6')
 - American Elderberry (6'–12')

Shady Edge Grouping

Shady Edge

(part shade, north or east facing
200–400 sq ft)

- Choose ONE canopy —
 - Hackberry (40'–60')
 - Basswood (60';–08
 - Large trees—pick based on space & soil
- Add 1-2 understory:
 - Pagoda Dogwood (15'–25')
 - Witch Hazel, (10'–15')
 - Paw Paw (15'–20')
 - (pick what fits) Good for small home plantings
- Fill with shrubs — plant 3 or more:
 - Highbush Cranberry (8'–12')
 - Nannyberry (10'–18')
 - Fragrant Sumac (3'–6')

Narrow Grouping

Narrow Wildlife Strip

(as little as 8'–10' ft wide) Length depends upon what you plant

- Add 1-2 understory:
 - Chokecherry (20'–30')
 - Ironwood (25'–40')
 - Hop Hornbeam (25'–40')
- Fill with shrubs
 - Ninebark (5'–10')
 - American Elderberry (6'–12')
 - Staghorn Sumac (15'–25')
 - American Hazelnut (6'–12')

You Are Invited:

METRO DETROIT POCKET FOREST TOUR

Meet the Forest Makers

 June 7, 2026  10 AM–4 PM

Take a tour of the Miyawaki-inspired Microforests in the Metro Detroit area, to learn from the experiences of the creators.

- 10:00 Rochester Mini-Forest (*search GPS "Rochester Community Gardens"*)
behind the community garden—
near Rochester Public Works off Wilcox
- 11:30 Nelson Park, 2775 15 Mile Rd.,
Sterling Heights, 48310
- Noon Lunch break
- 1:00 Warren Microforest, 13420 Julius Ave.
Warren, 48089
- 2:00 Miyawaki Forest at Lasky Recreation Center,
The Greening of Detroit, 13200 Fenelon,
Detroit, 48212, Park on the east side of the
parking lot. The Miyawaki Forest is behind
the mini-golf course.
- 3:00 Kintsugi Village, 2020 14th St., Detroit, 48216

REGISTER AT EVENTBRITE

LINK

<https://shorturl.at/VlpMM>

SCAN



Additional Mini-Forest

Information at:

RochesterPollinators.org Under

Resources &

pocketforests.org in Ann Arbor



You Tube
Spotify
Apple Podcast

This podcast fills a gap in accessible, local environmental media by spotlighting the power of small acts—whether planting a single milkweed or a native garden, to restoring a neglected public space, or to learn how to use your voice to make changes in public policy.





Rochester Pollinators
Board of Directors &
the Butterflies
Thank You!

Marilyn Trent,
Founder/Executive Director

Amber Quesenberry, Vice Chair

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Michelle Berry Lane, Secretary

Erica Schroeder, At Large

Laurie Simon, At Large

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Final Thoughts



Q & A

