

Native Plant Selection & Design

Composing & Conducting a Native Garden “Symphony”

By: Susie Van de Riet



St. Louis Native Plants

Native Plant Selection & Design

Have you ever been to hear/see an orchestra?



Designing & managing a native garden is quite similar to composing a symphony & conducting an orchestra!

What Comes First?

1) Gathering Info!

- Check Out the Site
- Home in on Ideals
- Make a Site Plan

Check Out the Site

- Sun/Shade?
- Moisture conditions?
- Soil Type?



Check Out the Site

- New or recent construction (soil condition)?
- Have you contacted Digrite?



Check Out the Site

- Front and/or Back Yards?
- Who/How are your neighbors?



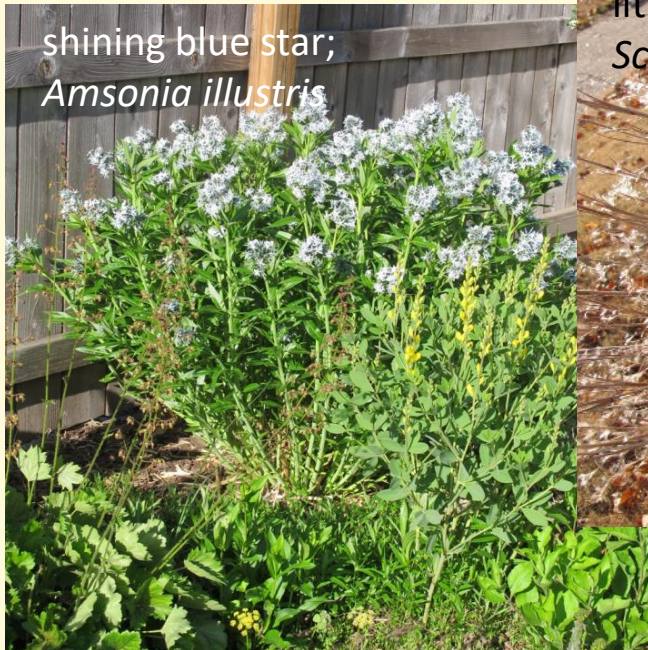
Check Out the Site

How big will the garden be?



Home in on Ideals

Particular colors, textures, specific plants, themes, or garden styles you favor?



shining blue star;
Amsonia illustris



little blue stem;
Schizachyrium scoparium



blue wild indigo;
Baptisia australis

Home in on Ideals

Particular colors, textures, specific plants, themes, or garden styles you favor?



black eyed Susan;
Rudbeckia spp.



little blue stem,
Schizachyrium scoparium



asters;
Symphyotrichum spp.

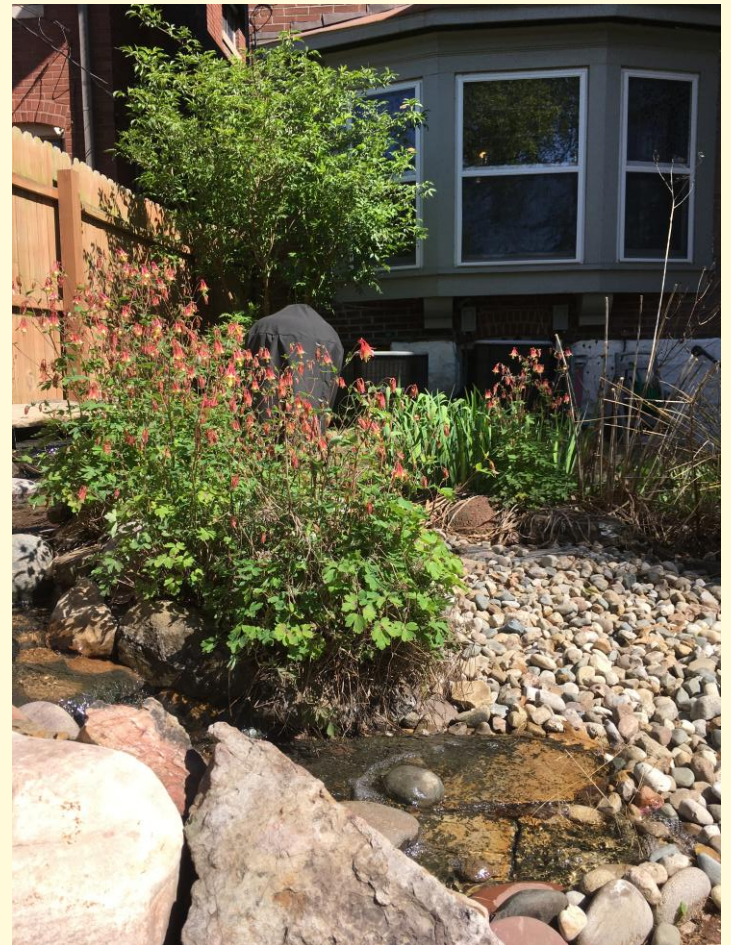
Home in on Ideals

Particular colors, textures, specific plants, themes, or garden styles you favor?



Home in on Ideals

Do you have views you'd like to frame or create (or block)?



Home in on Ideals

How do you want the space to function?



Home in on Ideals

What kind of wildlife do you hope to attract?



Home in on Ideals

What kind of wildlife do you hope to attract?



Home in on Ideals Time & Money

- Do you have a budget?
- Do you have a timeline?



BECOME A
YOUTUBE STAR

DESIGN MY
OWN JEWELRY

GET MY
DREAM JOB

HAVE A
BABY

OPEN MY
YOGA STUDIO

LAUNCH
A STARTUP

ADOPT
A KID

BACKPACK
PATAGONIA

FIND MY
SOULMATE

BUY A HOME
BY THE SEA

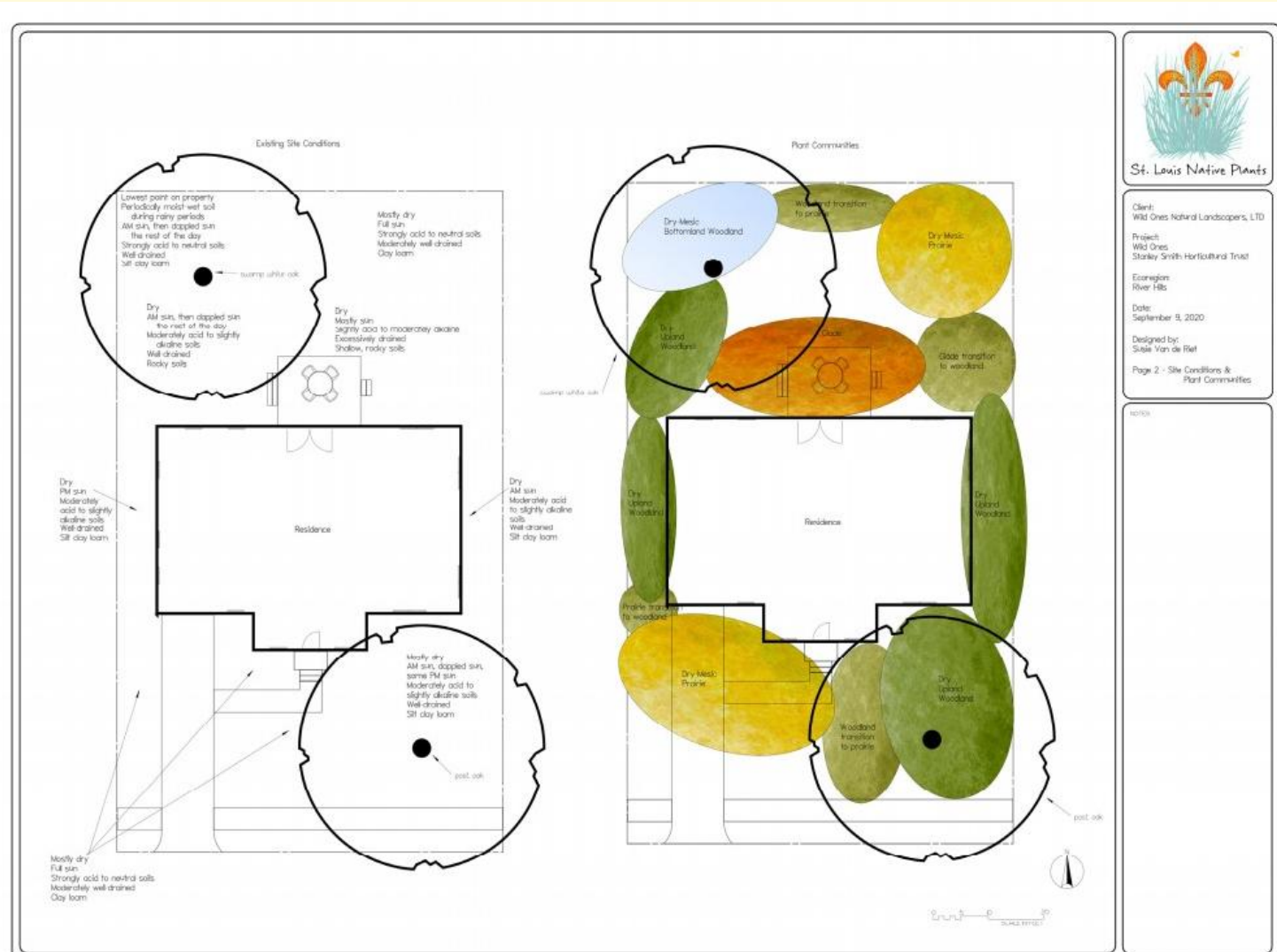
Home in on ideals

Maintenance

Who & How Much Time?



From here, develop a site plan with site information, measurements, & ideals





What Next?

Principles/Techniques for Design Composition

2) Bringing Together the Info to Create Your Design!

- Right Plant, Right Place
- Borders
- Focal Points
- 3's & 5's
- Staggering
- Companion Plantings
- Plant Quantities/Spacing
- Contrasting Plant Textures/Colors/Foliage
- Seasonal Interest
- Wildlife
- Sources for Inspiration
- Helpful Strategies

Right Plant, Right Place!

What kind of garden will this be?

Forest: Shady?

Wetland: Sunny & Wet?

Periodic flooding?



Right Plant, Right Place!

What kind of garden will this be?

Prairie/Glade: Sunny & Dry?

Woodland: Part Sun, Part Shade, Dry?



Borders



Bed Shape



Focal Points & Odd Numbers



Staggering





Companion Plantings & Plant Communities

Spacing & Quantity:
They can touch!

Plant Spacing/Quantity



Calculate Area, Spacing or Number of Plants
(enter two fields and click "Calculate")

Area covered (square feet):

Spacing between plants (inches):

Number of plants:

Estimating Plant Quantities and Spacing

If your garden layout is 10 feet by 10 feet you have 100 square feet of space (10x10=100). If you choose to plant on 12-inch centers, you need 100 plants.

Plant Quantity Calculator

	Spacing in Inches				
	8"	12"	18"	24"	36"
50	100	50	22	12	5
100	225	100	45	25	11
150	350	150	67	37	16
200	450	200	90	50	22
250	550	250	112	62	28
300	675	300	135	75	33
400	900	400	180	100	44
500	1100	500	225	125	55
600	1350	600	270	150	66
700	1550	700	315	175	77
800	1800	800	360	200	88
900	2000	900	405	225	99
1000	2250	1000	450	250	110

Left column is total square feet.

(Plant calculator online
www.classygroundcovers.com)

SNR/MOBOT
Landscaping with Native Plants
(Ch 4) booklet

Contrasting plant
textures/colors/foilage
Seasonal interest & bloom periods
Spring & Early Summer



Robin's plantain;
Erigeron pulchellus



shining blue star;
Amsonia illustris



purple lovegrass;
Eragrostis spectabilis

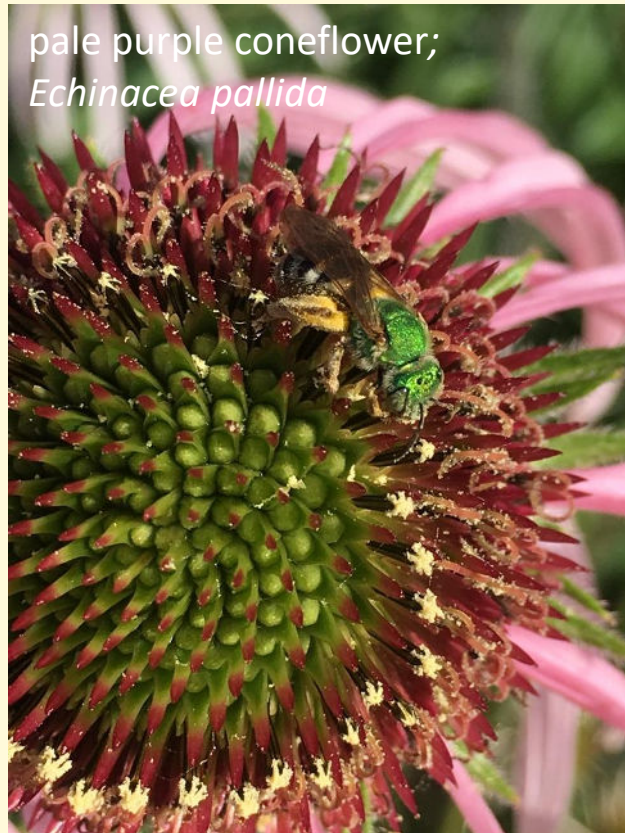


blue wild indigo;
Baptisia australis

Contrasting plant textures/colors/foilage

Seasonal interest & bloom periods

Spring & Early Summer



pale purple coneflower;
Echinacea pallida



purple lovegrass;
Eragrostis spectabilis



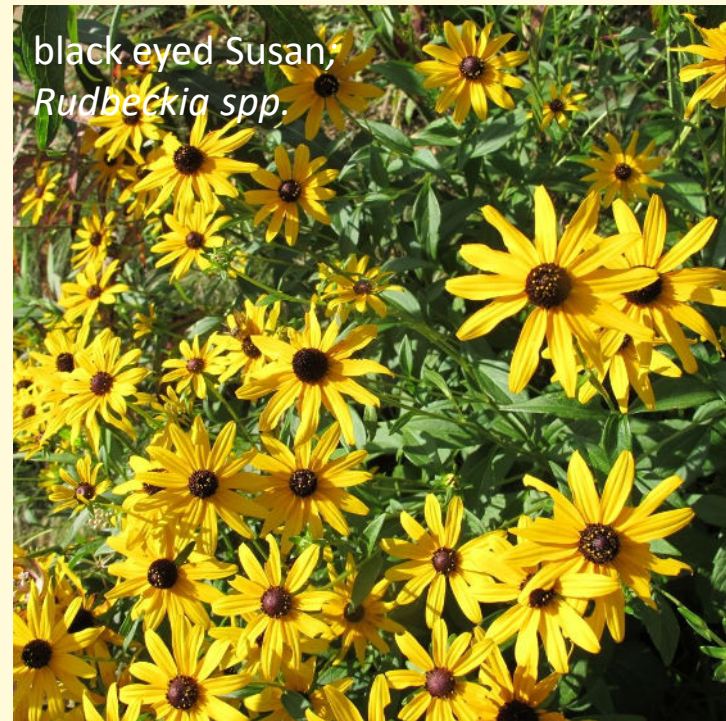
butterfly weed;
Asclepias tuberosa

Contrasting plant textures/colors/foliage

Seasonal interest & bloom periods

Mid-Late Summer

black eyed Susan;
Rudbeckia spp.



purple lovegrass;
Eragrostis spectabilis



purple coneflower;
Echinacea purpurea



Contrasting plant textures/colors/foilage

Seasonal interest & bloom periods

Mid-Late Summer



partridge pea;
Chamaecrista fasciculata



purple lovegrass;
Eragrostis spectabilis

Contrasting plant textures/colors/foilage

Seasonal interest & bloom periods

Late Summer to Fall



purple lovegrass;
Eragrostis spectabilis

A photograph of purple lovegrass (Eragrostis spectabilis) in bloom. The plant is a tall, slender grass with a dense, feathery inflorescence that has turned a vibrant reddish-purple color. It is growing in a natural setting with a large, light-colored rock in the foreground and other green foliage in the background.



Contrasting plant textures/colors/foilage

Seasonal interest & bloom periods

Fall-Winter



Shagbark hickory;
Carya ovata



little blue stem;
Schizachyrium scoparium



Indian physic;
Gillenia stipulata

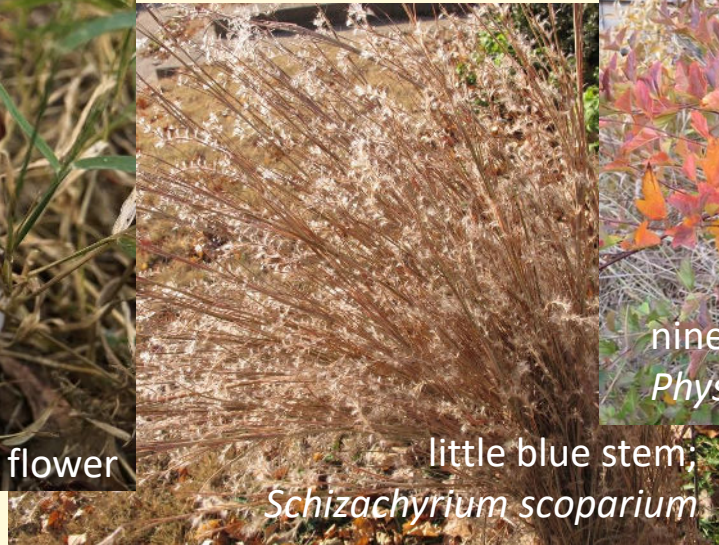
Contrasting plant textures/colors/foilage

Seasonal interest & bloom periods

Fall-Winter



dittany;
Cunila origanoides producing frost flower



little blue stem;
Schizachyrium scoparium



ninebark;
Physocarpus opulifolius

Considerations for Wildlife

Habitat

Food, Space, Shelter, Poison-free

- Larger contiguous plant clusters for arthropods and birds
- Particular plants for birds & bugs
- Bare ground for insects that nest in ground (70% bee species)
- Bunch grasses
- Leaving an area of rotting wood/twigs/brush pile (30% bee species)
- Leave the Leaves (particularly during winter)!
- Including a water feature/bird bath



Not feeling inspired?



Client:
Wild Ones Natural Landscapes, LTD

Project:
Wild Ones
Stanley Smith Horticultural Trust

Ecoregion:
River Hills

Date:
September 9, 2020

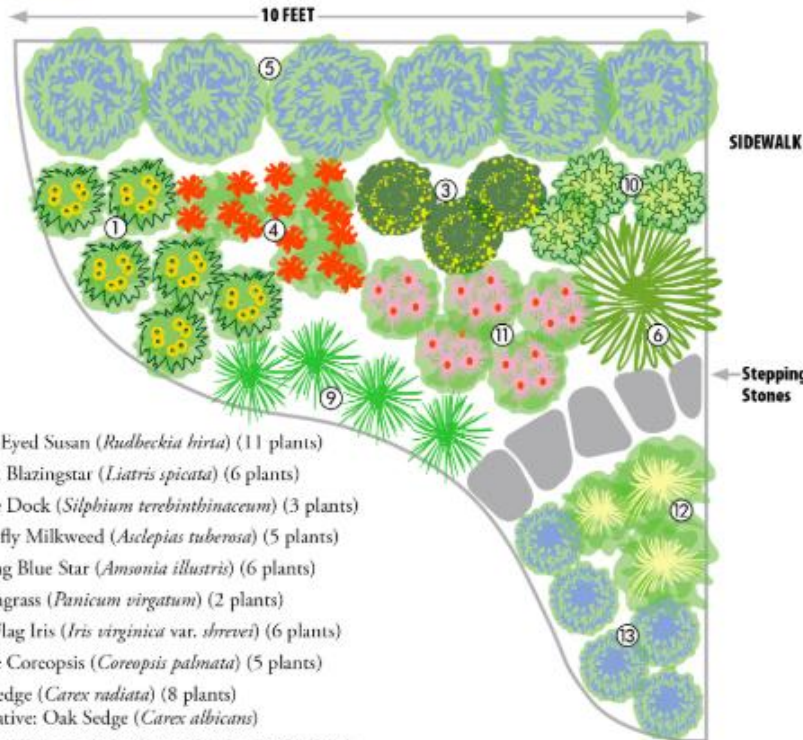
Designed by:
Sally Van de Riet

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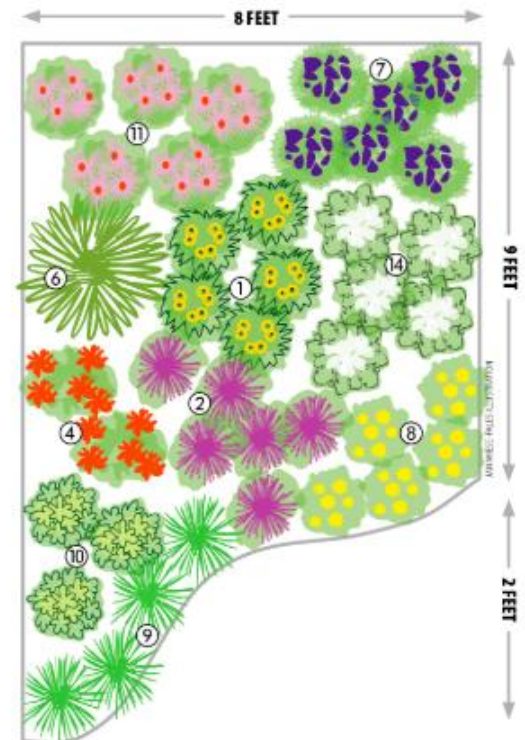
Not feeling inspired?



NATIVE GARDEN DESIGN: FRONT YARD FORMAL FULL SUN



- ① Black-Eyed Susan (*Rudbeckia hirta*) (11 plants)
- ② Marsh Blazingstar (*Liatris spicata*) (6 plants)
- ③ Prairie Dock (*Silphium terebinthinaceum*) (3 plants)
- ④ Butterfly Milkweed (*Asclepias tuberosa*) (5 plants)
- ⑤ Shining Blue Star (*Amsonia illustris*) (6 plants)
- ⑥ Switchgrass (*Panicum virgatum*) (2 plants)
- ⑦ Blue Flag Iris (*Iris virginica* var. *shrevei*) (6 plants)
- ⑧ Prairie Coreopsis (*Coreopsis palmata*) (5 plants)
- ⑨ Star Sedge (*Carex radiata*) (8 plants)
alternative: Oak Sedge (*Carex albicans*)
- ⑩ Prairie Alumroot (*Heuchera richardsonii*) (6 plants)
- ⑪ Purple Coneflower (*Echinacea purpurea*) (10 plants)
- ⑫ Yellow Wild Indigo (*Baptisia sphaerocarpa*) (3 plants)
alternative: Blue Wild Indigo (*Baptisia australis*)
- ⑬ Feathery Blue Star (*Amsonia ciliata*) (5 plants)
- ⑭ Slender Mountain Mint (*Pycnanthemum tenuifolium*) (5 plants)



This native garden design was produced by the Missouri Prairie Foundation's Grow Native! program from a design concept by Scott Woodbury, Shaw Nature Reserve. Partial funding for this garden design provided by Missouri Department of Conservation.

Not feeling inspired?

Add Life to Your Landscape

Well-designed native landscapes create eye appeal and attract watchable wildlife to your yard. Wildlife species evolved with their favorite native plant species and prefer them for food and shelter. For design ideas, take a look at these diagrams and adapt them to fit your needs. While your space may be smaller or larger, the plant palette for attracting certain species of wildlife remains the same.



Finch feast

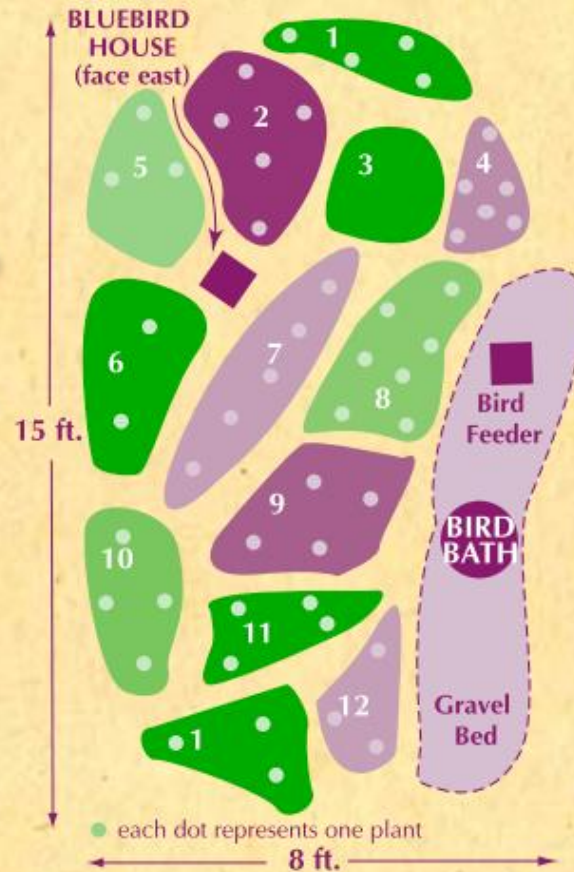
The **finch feast** is a wildlife-themed garden that concentrates on fruiting trees, shrubs, perennials and grasses with seed heads. Add a birdhouse, birdbath or feeder for even more attraction.

Legend

- | | |
|-----------------------|----------------------------|
| 1. Prairie dropseed | 7. Prairie blazing star |
| 2. Purple coneflower | 8. Orange coneflower |
| 3. Rose verbena | 9. Blue false indigo |
| 4. Missouri primrose | 10. Grey-headed coneflower |
| 5. Showy goldenrod | 11. Lanceleaf coreopsis |
| 6. Eastern gama grass | 12. Purple poppy mallow |

Note: plant in sun, but near one or more fruiting shrubs or small trees to provide food, cover and nesting.

Butterfly berm



Not feeling inspired?
Get Outside!



Helpful Strategies

Maintenance level – high vs. low diversity, etc.



Helpful Strategies

Maintenance

- Living/green mulch – ground covers



Helpful Strategies

Maintenance

- Living/green mulch – ground covers



Helpful Strategies

- Phase plantings – Might be full sun at first until plants mature
- Timing – finished product isn't likely to happen for 2-3 years (patience)



Helpful Strategies

Use *Rudbeckia hirta* (or other) seed as a nurse crop



Rudbeckia spp.

Plant Sourcing

- Grow Native has a list of nurseries & retail garden centers who sell native plants
- Source plants by their botanical names
- You may have to source from more than one place
- Pot Size & Pricing - Plugs, 2 inch pots, quarts, or gallons+



Learn From Observing!

Your personal experience is indispensable!

“Look deep into nature, and then
you will understand everything better.”

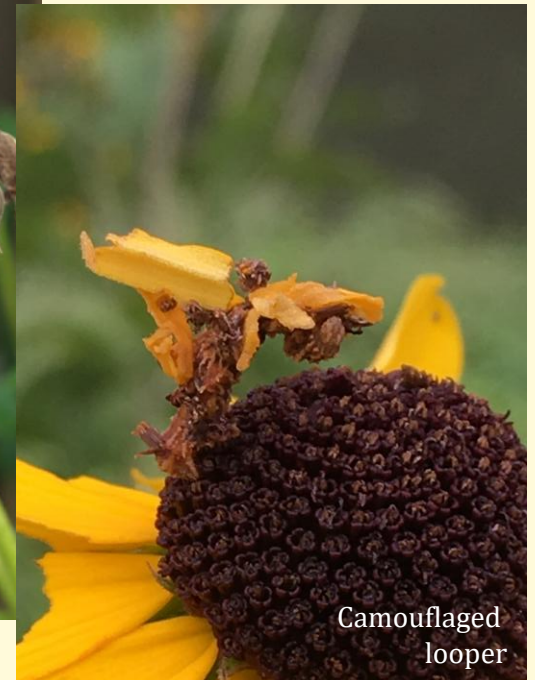
– Albert Einstein



Spicebush swallowtail caterpillar



Common green damselfly



Camouflaged
looper



Have Fun!



Clever girl



Conclusion



You can create a beautiful outdoor "symphony" that is beneficial to you, the environment, and wildlife.

Helpful Resources

Places/Organizations to Volunteer to Get Your Hands on Some Plants

Bring Conservation Home – St. Louis Audubon Society
Forest Park Forever – Nature Reserve
MO Botanical Garden – In any of their native plant areas
Wild Ones

Organizations/Websites/Apps

BONAP North American Plant Atlas
Grow Native! (GrowNative.org)
- *Top Ten Lists*
INaturalist
MDC
MO Native Plant Society
Brightside StL/Neighbors Naturescaping
St. Louis Audubon Society/BCH
St. Louis Native Plant Swap (on facebook)
Shaw Nature Reserve
Wild Ones
Xerces Society (xerces.org)



St. Louis Native Plants

Susie Van de Riet
stlnativeplants@gmail.com

Helpful Resources

Books/Literature

Attracting Native Pollinators by Xerces Society

Farming with Native Beneficial Insects (Ecological Pest Control Solutions) by Xerces Society

Landscaping with Native Plants – A Gardener’s Guide For Missouri – Shaw Nature Reserve/MOBOT

Plant Catalog – Missouri Wildflower Nursery

Native Plants for Your Landscape – Missouri Department of Conservation

Steyermark’s Flora of Missouri

Formal Education

Continuing Education @ St. Louis Community College - Meramec

Horticulture Program @ St. Louis Community College - Meramec

Master Gardener/Master Naturalist programs

Native plant presentations & classes (Through organizations like Wild Ones & Grow Native)

Native Plant School at Shaw Nature Reserve

Your Personal Experience in Your Yard

Start working with native plants in your yard/outdoor space and you’ll learn a lot!



St. Louis Native Plants

Susie Van de Riet

stlnativeplants@gmail.com

Questions?



Thank You!

