Novel Plant Communities of Pennsylvania

what is a novel plant community?

novel plant communities are man made communities of plants that group plants that share a common environment and mimics a historic plant community. These communities can be used to create comprehensive conservation plans such as wide-scale land management or small scale designs in a back or front yard!

incorporating novel plant communities into your own garden:

start small. You don't have to convert your whole yard to native plants. Instead try introducing native plants little bits at a time. It's more economical and this approach will let you get to know each plant well. of course, this does mean that your native plant will have to compete with non native plants, which may be hard if you have invasives in your yard.

Sunny/Dry locations:

| scientific name	common name
trees	
• Pinus strobus	• eastern white pine
• Nyssa sylvatica	• black gum
• Sassafras albidum	• sassafras
• Cercis canadensis	• redbud
• Amelanchier arborea	• common serviceberry
shrubs	
• Kalmia latifolia	• mountain laurel
• Photinia pyrifolia	• red chokeberry
• Rhododendron periclymenoiodes	• pinxterbloom azalea
• Vaccinium angustifolium	• lowbush blueberry
• Vaccinium corymbosum	• highbush blueberry
• Viburnum prunifolium	• blackshaw
perennials	
• Aquillegia canadensis	• wild columbine
• Asclepias syriaca	• common milkweed
• Monarda fistulosa	• bee balm (wild bergamot)
• Oenothera perennis	• sundrops
• Penstemon digitalis	• beard-tongue
• Rudbeckia hirta	• black-eyed susan
• Smilacina racemosa	• false soloman's seal
• Solidago rugosa	• wrinkled-leaf goldenrod

TREES:

Pinus strobus

Nyssa sylvatica
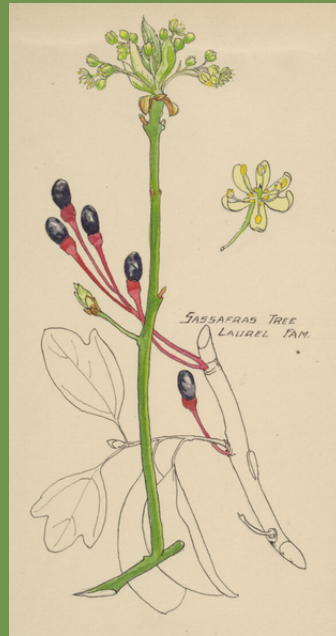
Sassafras albidum

Cercis canadensis
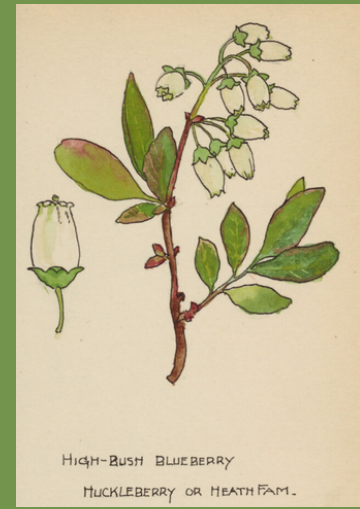

Amelanchier arborea

SHRUBS:

Kalmia latifolia

Photinia pyrifolia

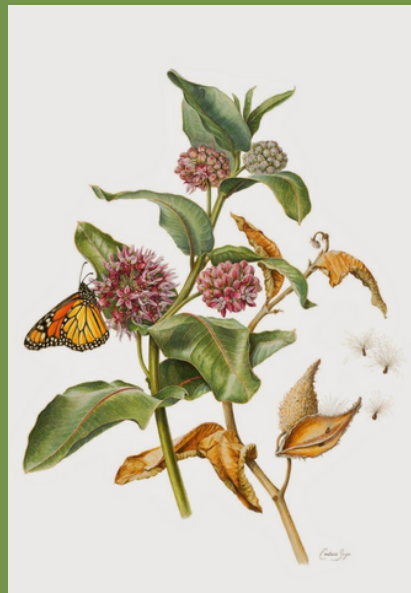Vaccinium angustifolium

Viburnum prunifolium

blackshaw

Rhododendron periclymenoiodes

Perennials:

aquillegia canadensis

asclepias syriaca
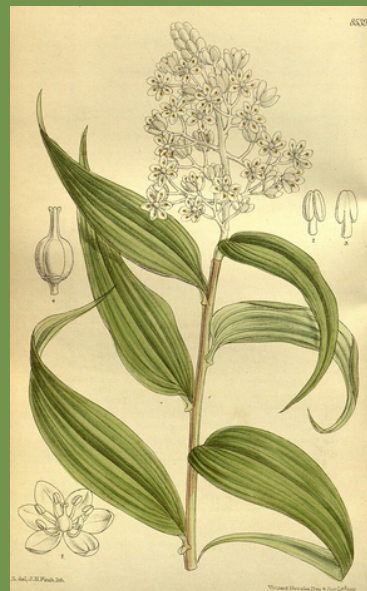

monarda fistulosa

oenothera perennis

rudbeckia hirta

smilacina racemosa

solidago rugosa

penstemon digitalis

Example Garden:

© The Natural Garden

Sunny/Moist locations:

	scientific name	common name
trees	• Amelachier arborea • Quercus alba	• serviceberry • white oak
shrubs	• Photinia (aronia) melanocarpa • Clethra alnifolia • Cornus stolonifera • Ilex verticillata • Sambucus canadensis • Physocarpus opulifolius	• black chokeberry • summersweet • red-osier dogwood • winterberry holly • elderberry • ninebark
ferns	• Osmunda cinnamomea	• cinnamon fern
perennials	• Asclapias incarnata • Symphyotrichum novae-angliae • Chelone glabra • Eupatorium fistulosum • Generanium maculatum • Heliopsis helianthoides • Lobelia cardinalis • Lobelia siphilitica • Mimulus ringens • Monarda didyma • Monarda fistulosa • Oenothera perennis • Penstemon digitalis • Phlox maculata • Phlox paniculata • Vernonia noveboracensis	• swamp milkweed • new england aster • turtlehead • joe-pye-weed • wild geranium • oxeye sunflower (summer sun) • cardinal flower • great blue lobelia • monkey flower • bee-balm • beebalm (wild bergamont) • sundrops • beard tongue • wild sweet william • garden phlox • new york ironweed

TREES:

amelachier arborea

quercus alba
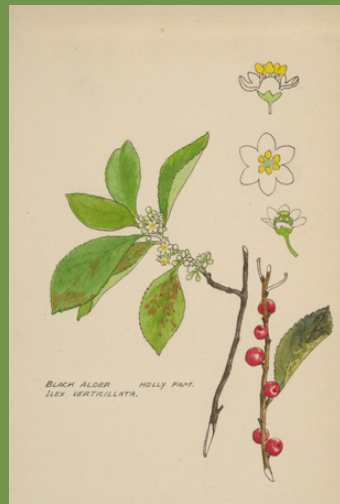
FERNS:

Osmunda cinnamomea

SHRUBS:

Aronia melanocarpa

clethra alnifolia

cornus stolonifera

Ilex verticillata

Sambucus canadensis

Physocarpus opulifolius

PERENNIALS:

Asclapias incarnata Symphyotrichum novae-angliae Chelone glabra Eupatorium fistulosum

Generanium maculatum Heliopsis helianthoides Lobelia cardinalis Lobelia siphilitica

Mimulus ringens Monarda didyma monarda fistulosa oenothera perennis penstemon digitalis

WILD SWEET-WILLIAM.
PHLOX FAM.

Phlox maculata

GARDEN PHLOX
PHLOX FAM.

Phlox paniculata

New York
TALL IRON-WEED
COMPOSITE FAM.

Vernonia noveboracensis

Example Garden:

Shady/Moist locations:

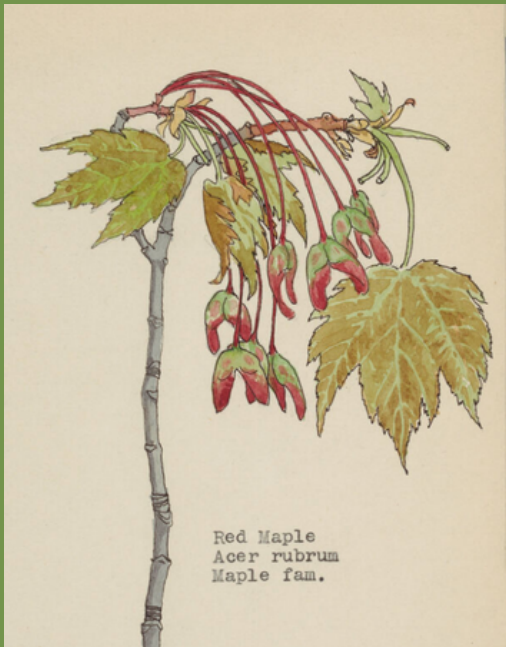|	scientific name	common name
trees	• Acer rubrum • Cornus alternifolia	• red maple • alternate leaved dogwood
shrubs	• Hydrangea arborescens • Kalmia latifolia • Lindera benzoin • Rhododendron maximum • Viburnum acerifolium	• wild hydrangea • mountain laurel • spicebush • rosebay • maple-leaved viburnum
ferns	• Adiantum pedatum • Dryopteris marginalis • Osmunda claytoniana • Polystichum acrostichoides • Matteuccia struthiopteris • Osmunda regalis • Athyrium felix-femina	• maidenhair fern • evergreen shield fern • interrupted fern • chistmas fern • ostrich fern • royal fern • lady fern
perennials	• Arisaema triphyllum • Asarum canadense • Actaea racemosa • Dicentra cucullaria • Mertensia virginica • Phlox divaricata • Polemonium reptans • Tiarella cordifolia	• jack-in-the-pulpit • wild ginger • black cohosh • dutchman's breeches • virginia bluebells • wild blue phlox • Jacob's ladder • foamflower

TREES:

Acer rubrum

Cornus alternifolia

SHRUBS:

Hydrangea arborescenss

Kalmia latifolia

Lindera benzoin

Rhododendron maximun

Viburnum acerifolium

FERNS:

Adiantum pedatum

Dryopteris marginalis

Osmunda claytoniana

Polystichum acrostichoides

Matteuccia struthiopteris
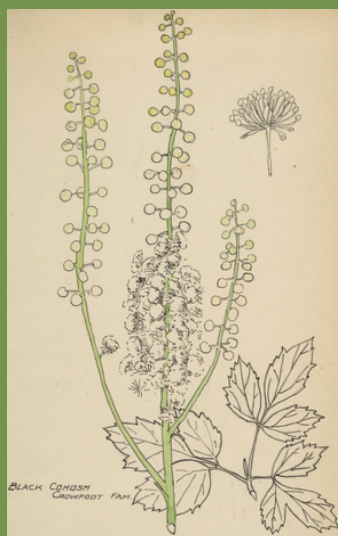
Osmunda regalis

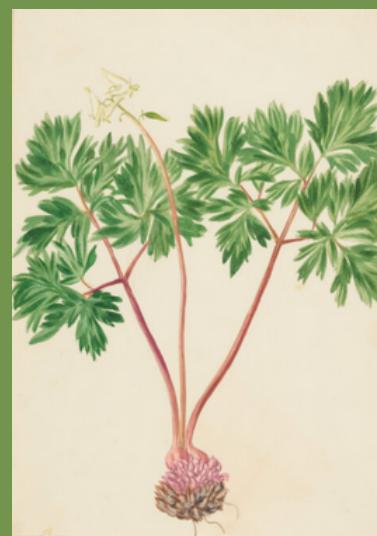Athyrium felix-femina

PERENNIALS:
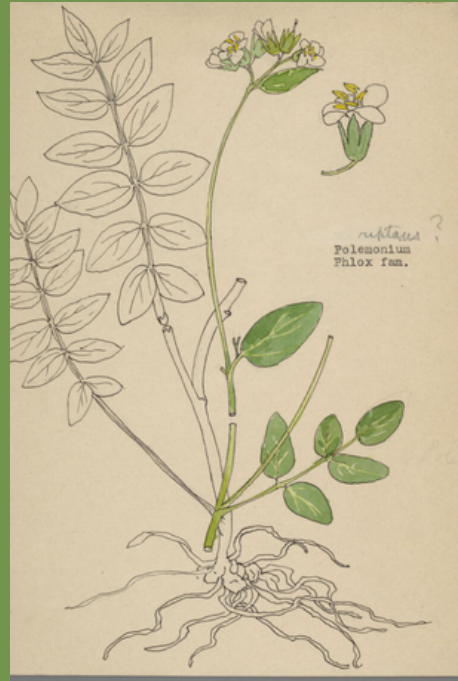
Arisaema triphyllum

Asarum canadense

Actaea racemosa

Dicentra cucullaria

Mertensia virginica

Phlox divaricata

Polemonium
Phlox fam.

Polemonium reptans

FALSE MITREWORT
SAXIFRAGE FAM.
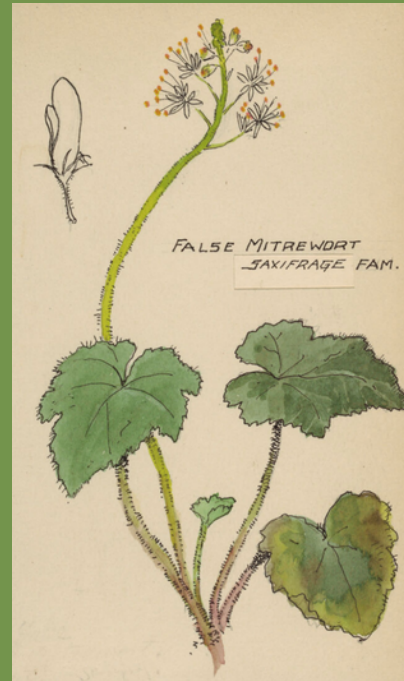
Tiarella cordifolia

Example Garden:

Shady/Dry locations:

|	scientific name	common name
trees	- Acer saccharum - Ostrya virginiana - Hamamelis virginiana	- sugar maple - hop hornbeam - witch hazel
shrubs	- Kalmia latifolia - Rhododendron maximum - Rhododendron perictymenoides - Viburnum recognitum	- mountain laurel - rosebay - pinxter flower - arrow-wood
perennials	- Aquilegia canadensis - Asarum canadense - Eurybia (aster) divaricatus - Actaea racemosa - Ageratina altissima - Geranium maculatum - Heuchera americana - Mitchella repens - Podophyllum peltatum - Sanguinaria canadensis - Smilacina racemosa - Solidago bicolor	- wild columbine - wild ginger - white wood aster - black cohosh - whte snakeroot - wild geranium - alumroot - partridge berry - mayapple - bloodroot - false soloman's seal - white goldenrod

TREES:

Acer saccharum
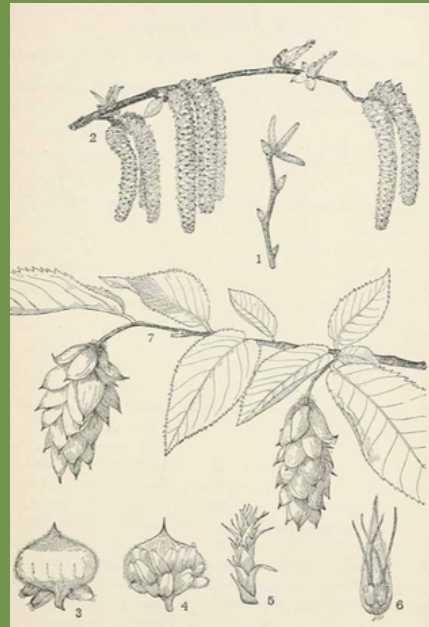
Ostrya virginiana

witch hazel

SHRUBS:

Rhododendron maximun

Rhododendron perictymenoides
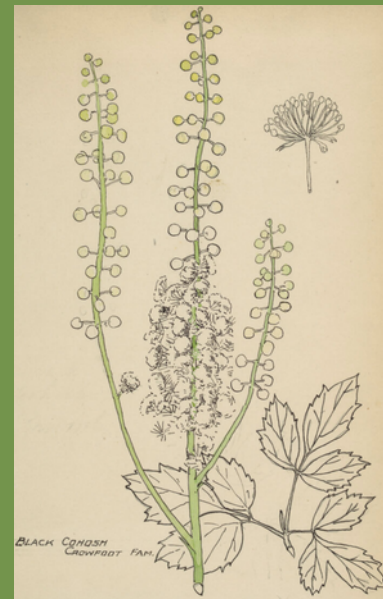

Viburnum recognitum

PERENNIALS:

Aquilegia canadensis

Asarum canadense

Eurybia (aster) divaricatus

Actaea racemosa

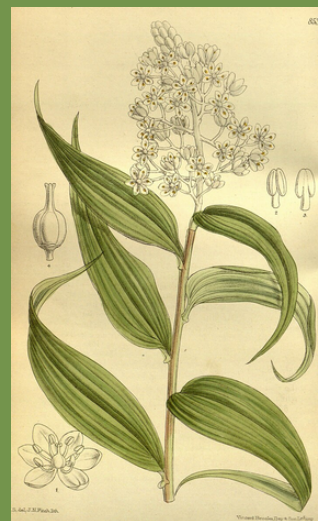Ageratina altissima

Geranium maculatum

Heuchera americana

Mitchella repens
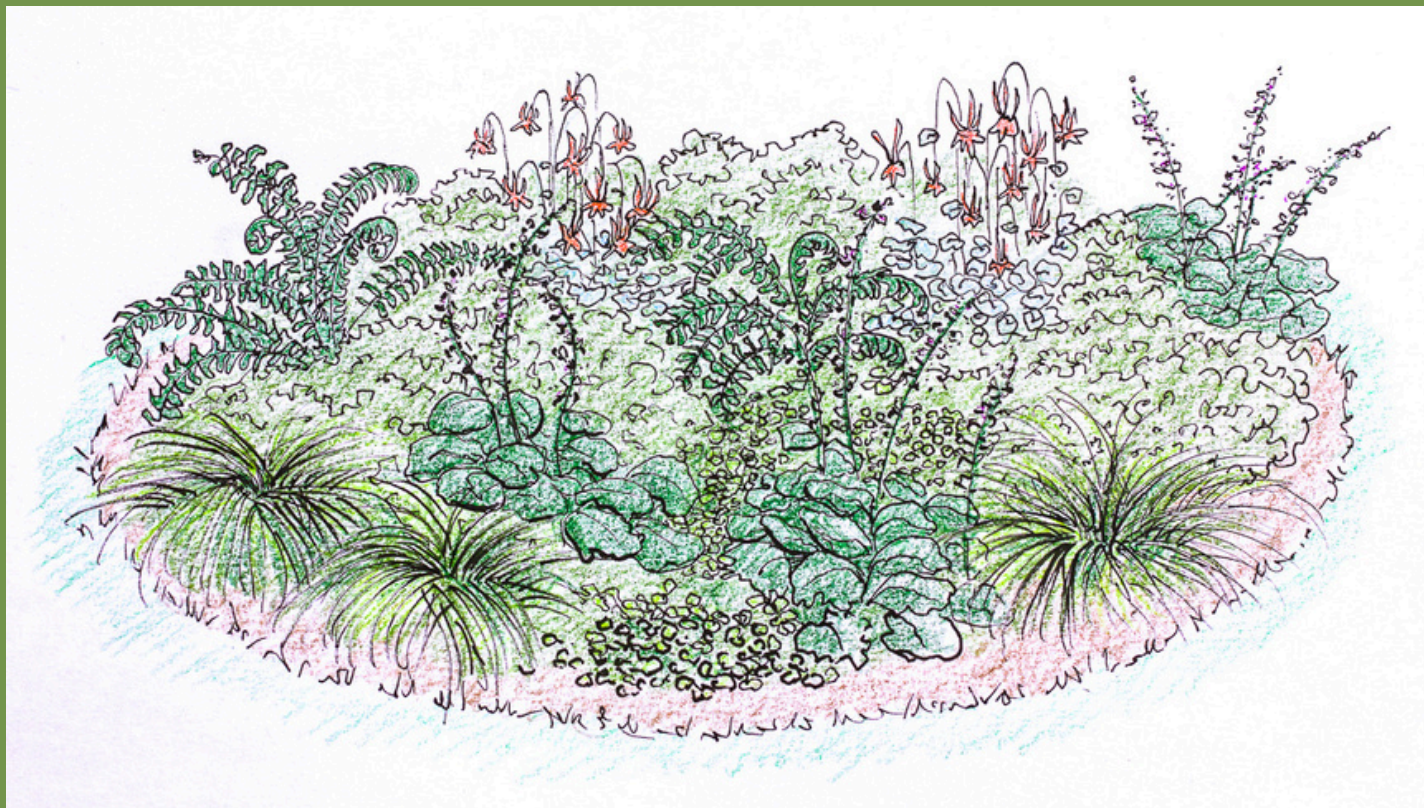
Podophyllum peltatum

Sanguinaria canadensis

smilacina racemosa

Solidago bicolor

Example Garden:

Native Pond Plants:

scientific name	common name
• Nuphar advena	• Saptterdock
• Nuphar variegata	• Spatterdock
• Persicaria amphibia	• water smartweed
• Sagittaria latifolia	• wapato

Nuphar advena

Nuphar variegata

Persicaria amphibia

Sagittaria latifolia

Replacing Common invasives with similar natives:

invasive plant:	native plant alternative:	wildlife value:	sun soil requirements:
• butterfly bush	• buttonbush	• bees, butterflies	• full sun to shade; most soil textures, and wet, moist to flooded soils
• japanese spiraea	• steeplebush	• butterflies	• full sun; soil type: clay, loamy organic, and moist to wet soils
• japanese maple	• white fringe tree	• birds	• full sun to shade, loamy, sandy. and dry to moist soils
• bradford/ callery pear	• cockspur hawthorn	• bees, birds, butterflies	• full to part sun; clay loamy, or sandy soils, and dry to moist soils

SOURCES:

1. "Botanical Illustrations." CURIOSity Digital Collections, curiosity.lib.harvard.edu/botanical-illustrations.

2. "Magnified Portraits of Southwestern Pa Native Plants: Phipps Conservatory and Botanical Gardens: Pittsburgh Pa." Phipps Conservatory, www.phipps.conservatory.org/exhibits-and-events/calendar/magnified-portraits-of-southwestern-pa-native-plants.

3. "Plant Communities." Pennsylvania Department of Conservation & Natural Resources, www.dcnr.pa.gov/Conservation/WildPlants/PlantCommunities/Pages/default.aspx.

4. Palustrine Communities 2 - Pennsylvania Natural Heritage Program, www.naturalheritage.state.pa.us/docs/community/Communities_Palustrine_s2.pdf.

5. Terrestrial & Palustrine Plant Communities of Pennsylvania , www.naturalheritage.state.pa.us/docs/community/Communities_Terrestrial_s3.pdf.

6. "Pa Native Plant Society." PA Native Plant Society, www.panativeplantsociety.org/. .

7. "Pennsylvania Native Plants: Ultimate Landscaping Guide." Stauffers, 28 June 2024, www.skh.com/thedirt/pennsylvania-native-plants/.

8. "The Natural Garden, Inc.." The Natural Garden, Inc., www.thenaturalgarden.net/. Accessed 16 Aug. 2024. used to find natural garden examples. would recommend going to their website for more in-depth garden planning

HAPPY PLANTING!