

## Report on 2015 Phenology Observations

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During the 2015 phenology season, from Mar 13-Nov 11 (42 weeks), a total of 3,506 observations of 242 species were recorded.

**Table 1. Transects in the 2015 LREC phenology study.**

<b>Transect</b>	<b>Habitat Type</b>	<b>Length (m)</b>
North Prairie	Wet-Mesic Prairie	200
North Woods	Riparian Woods	180
North Edge	Prairie/Woodland Transition	130
South Prairie	Wet-Mesic Prairie	160
South Woods	Riparian Woods	200
Pasture Prairie	Wet-Mesic Prairie	100
Mulch Woods	Riparian Woods	90
South Edge	Prairie/Woodland Transition	120

**Table 2. Observation and species count by transect**

<b>Transect</b>	<b>observations</b>	<b>species count</b>
North Prairie	667	110
South Prairie	447	90
Pasture Prairie	590	101
North Woods	383	102
South Woods	330	77
North Edge	394	84
South Edge	455	99

**Table 3. List of species recorded during the 2015 phenology season. Species names in all caps are non-native.**

<b>Species</b>	<b>Common name</b>	<b>Habitat</b>
<i>GALANTHUS NIVALIS</i>	Snowdrops	Woodland
<i>CARDAMINE HIRSUTA</i>	Hoary Bitter Cress	Prairie,Woodland,Edge
<i>RANUNCULUS FICARIA</i>	Lesser Celandine	Prairie,Woodland,Edge
<i>Enemion biternatum</i>	False Rue Anemone	Woodland
<i>LAMIUM PURPUREUM</i>	Dead Nettle	Prairie,Woodland,Edge
<i>Claytonia virginica</i>	Spring Beauty	Prairie,Woodland
<i>Trillium recurvatum</i>	Purple Trillium	Woodland
<i>Viola sororia</i>	Hairy Wood Violet	Prairie,Woodland,Edge
<i>Asarum canadense</i>	Wild Ginger	Woodland
<i>Phlox divaricata</i>	Wild Sweet William	Woodland,Edge
<i>TARAXACUM OFFICINALE</i>	Common Dandelion	Prairie,Woodland,Edge
<i>ALLIARIA PETIOLATA</i>	Garlic Mustard	Prairie,Woodland,Edge
<i>Galium aparine</i>	Annual Bedstraw	Woodland,Edge
<i>Podophyllum peltatum</i>	Mayapple	Woodland,Edge
<i>DUCHESNEA INDICA</i>	Indian Strawberry	Prairie,Woodland,Edge
<i>ORNITHOGALUM UMBELLATUM</i>	Star of Bethlehem	Prairie,Woodland,Edge
<i>Packera glabella</i>	Butterweed	Woodland,Edge
<i>Packera aurea</i>	Golden Ragwort	Woodland,Edge
<i>Arisaema dracontium</i>	Green Dragon	Woodland
<i>Monarda bradburiana</i>	Horsemint	Woodland
<i>Oxalis dillenii</i>	Yellow Wood Sorrel	Prairie,Woodland,Edge
<i>Sisyrinchium angustifolium</i>	Pointed Blue-Eyed Grass	Prairie,Woodland,Edge
<i>Tradescantia subaspera</i>	Broad-Leaved Spiderwort / Zigzag Spiderwort	Prairie,Woodland,Edge
<i>POLYGONUM CESPITOSUM</i>	Creeping Smartweed	Prairie,Woodland,Edge
<i>Blephilia ciliata</i>	Ohio Horsemint	Prairie,Woodland
<i>Erigeron strigosus</i>	Prairie/Daisy Fleabane	Prairie,Woodland,Edge
<i>MEDICAGO LUPULINA</i>	Black Medic	Prairie,Woodland,Edge
<i>Blephilia hirsuta</i>	Wood Mint	Woodland,Edge
<i>Erigeron annuus</i>	Annual Fleabane	Prairie,Woodland,Edge
<i>Geum canadense</i>	White Avens	Prairie,Woodland,Edge
<i>Phytolacca americana</i>	Pokeweed	Woodland,Edge
<i>Eutrochium pupureum</i>	Joe Pye Weed	Prairie,Woodland,Edge
<i>POLYGONUM PERSICARIA</i>	Smartweed	Woodland

<i>Tradescantia ohiensis</i>	Common Spiderwort	Prairie,Woodland,Edge
<i>Hackelia virginiana</i>	Stickseed	Woodland
<i>Monarda fistulosa</i>	Wild Bergamot	Prairie,Woodland,Edge
<i>Verbena urticifolia</i>	White Vervain	Prairie,Woodland,Edge
<i>Ageratina altissima</i>	White Snakeroot	Prairie,Woodland,Edge
<i>Rudbeckia triloba</i>	Brown-Eyed Susan	Prairie,Woodland,Edge
<i>Polygonum hydropiperoides</i>	Mild Water Pepper	Prairie,Woodland,Edge
<i>Polygonum virginianum</i>	Virginia Knotweed / Jumpseed	Prairie,Woodland,Edge
<i>Campanulastrum americanum</i>	American Bellflower	Prairie,Woodland,Edge
<i>Impatiens capensis</i>	Orange Jewelweed	Prairie,Woodland,Edge
<i>Rudbeckia laciniata</i>	Goldenglow	Woodland,Edge
<i>Verbesina alternifolia</i>	Wingstem	Prairie,Woodland,Edge
<i>Pilea pumila</i>	Canadian Clearweed	Woodland
<i>Solidago gigantea</i>	Late Goldenrod	Woodland,Edge
<i>Desmodium glabellum</i>	Glabrous Tick Trefoil	Woodland
<i>Arnoglossum atriplicifolium</i>	Pale Indian Plantain	Prairie,Woodland
<i>Chelone obliqua</i>	Rose Turtlehead	Prairie,Woodland
PERILLA FRUTESCENS	Beefsteak Plant	Woodland
<i>Solidago altissima</i>	Tall Goldenrod	Prairie,Woodland,Edge
<i>Conoclinium coelestinum</i>	Mist Flower	Woodland
COMMELINA COMMUNIS	Common Dayflower	Woodland,Edge
<i>Verbesina helianthoides</i>	Wingstem	Woodland
<i>Symphyotrichum lanceolatum</i>	Panicled Aster	Prairie,Woodland,Edge
NARCISSUS PSEUDONARCISSUS	Daffodil	Woodland,Edge
<i>Aesculus glabra</i>	Ohio Buckeye	Woodland,Edge
<i>Amelanchier arborea</i>	Serviceberry	Edge
BARBAREA VULGARIS	Yellow Rocket	Prairie,Edge
GLECHOMA HEDERACEA	Creeping Charlie	Prairie,Woodland,Edge
<i>Sassafras albidum</i>	Sassafras	Edge
<i>Collinsia verna</i>	Blue-Eyed Mary	Woodland,Edge
<i>Packera obovata</i>	Round-Leaved Groundsel	Woodland,Edge
<i>Polemonium reptans</i>	Jacob's Ladder	Prairie,Woodland,Edge
STELLARIA MEDIA	Common Chickweed	Prairie,Woodland,Edge
<i>Stellaria longifolia</i>	Longleaf Starwort	Edge
<i>Rubus flagellaris</i>	Common Dewberry	Prairie,Edge
TRIFOLIUM REPENS	White Clover	Prairie,Woodland,Edge

<i>Erigeron pulchellus</i>	Robin's Plantain	Prairie,Woodland,Edge
<i>Rubus allegheniensis</i>	Common Blackberry	Prairie,Woodland,Edge
<i>Zizia aurea</i>	Golden Alexander	Prairie,Edge
LONICERA JAPONICA	Japanese Honeysuckle	Prairie,Woodland,Edge
LYSIMACHIA NUMMULARIA	Creeping Jenny / Moneywort	Edge
VICIA SATIVA	Common Vetch	Prairie,Edge
<i>Cornus racemosa</i>	Gray Dogwood	Woodland,Edge
<i>Apocynum cannabinum</i>	Prairie Dogbane	Prairie,Edge
<i>Heliopsis helianthoides</i>	False Sunflower	Prairie,Edge
<i>Ruellia humilis</i>	Hairy Ruellia	Prairie,Edge
<i>Solanum carolinense</i>	Horse Nettle	Prairie,Edge
<i>Tripsacum dactyloides</i>	Gama Grass	Prairie,Edge
<i>Phyla lanceolata</i>	Fog Fruit	Prairie,Edge
STELLARIA GRAMINEA	Common Stitchwort	Edge
<i>Teucrium canadense</i>	Germander	Prairie,Woodland,Edge
DAUCUS CAROTA	Queen Anne's Lace	Edge
<i>Helianthus tuberosus</i>	Jerusalem Artichoke	Edge
<i>Pycnanthemum tenuifolium</i>	Slender Mountain Mint	Prairie,Edge
<i>Silphium integrifolium</i>	Rosinweed	Prairie,Edge
<i>Veronicastrum virginicum</i>	Culver's Root	Prairie,Edge
<i>Phlox paniculata</i>	Perennial Phlox	Prairie,Woodland,Edge
<i>Ratibida pinnata</i>	Grey Headed Coneflower	Prairie,Edge
<i>Convolvulus sp.</i>	Bindweed	Prairie,Edge
<i>Silphium perfoliatum</i>	Cup Plant	Prairie,Woodland,Edge
<i>Agrimonia paraviflora</i>	Swamp Agrimony	Prairie,Edge
<i>Coreopsis tripteris</i>	Tall Coreopsis	Prairie,Edge
IPOMOEA HEDERACEA	Ivyleaf Morning-glory	Prairie,Edge
<i>Rudbeckia subtomentosa</i>	Sweet Coneflower	Prairie,Edge
<i>Vernonia missurica</i>	Missouri Ironweed	Prairie,Edge
<i>Apios americana</i>	Groundnut	Prairie,Edge
<i>Desmodium perplexum</i>	Beggar's Lice	Prairie,Edge
<i>Ambrosia trifida</i>	Giant Ragweed	Prairie,Edge
<i>Elephantopus carolinianus</i>	Elephant Foot	Prairie,Woodland,Edge
<i>Vernonia gigantea</i>	Giant Ironweed	Woodland,Edge
<i>Sicyos angulatus</i>	Bur Cucumber	Woodland,Edge
<i>Helianthus maximiliani</i>	Maximillian Sunflower	Prairie,Edge

<i>Pedicularis lanceolata</i>	Swamp Betony	Prairie,Edge
<i>Symphyotrichum lateriflorum</i>	Side-Flowering Aster	Prairie,Woodland,Edge
<i>Symphyotrichum novae-angliae</i>	New England Aster	Prairie,Edge
<i>Symphyotrichum oolentangiense</i>	Azure Aster	Edge
<i>Symphyotrichum praealtum</i>	Willow Aster	Prairie,Edge
VERONICA SERPYLLIFOLIA	Thyme-leaf Speedwell	Prairie,Woodland
<i>Pedicularis canadensis</i>	Wood Betony	Prairie
<i>Rumex altissimus</i>	Pale Dock	Prairie
<i>Amsonia illustris</i>	Shining Bluestar	Prairie
LONICERA MAACKII	Bush Honeysuckle	Prairie,Woodland,Edge
<i>Castilleja coccinea</i>	Indian Paintbrush	Prairie
<i>Amorpha fruticosa</i>	Indigo Bush	Prairie
<i>Iris virginica shrevii</i>	Blue Flag Iris	Prairie,Edge
<i>Penstemon digitalis</i>	Foxglove Beardtongue	Prairie
<i>Achillea millefolium</i>	Yarrow	Prairie
<i>Asclepias syriaca</i>	Common Milkweed	Prairie
<i>Baptisia alba</i>	White Wild Indigo	Prairie
<i>Scirpus pendulus</i>	Nodding Bulrush	Prairie
<i>Triodanis perfoliata</i>	Venus' Looking Glass	Prairie
<i>Lythrum alatum</i>	Winged Loosestrife	Prairie
TRIFOLIUM PRATENSE	Red Clover	Prairie
<i>Thalictrum revolutum</i>	Waxy Meadow Rue	Prairie
<i>Veratrum virginicum</i>	Virginia Bunchflower	Prairie
<i>Asclepias tuberosa</i>	Butterfly Milkweed	Prairie
<i>Ludwigia alternifolia</i>	Bushy Seedbox	Prairie,Edge
<i>Rosa setigera</i>	Prairie Rose	Prairie
<i>Rudbeckia hirta</i>	Black-Eyed Susan	Prairie,Edge
<i>Eryngium yuccifolium</i>	Rattlesnake Master	Prairie
<i>Polygonum punctatum</i>	Smartweed	Prairie
<i>Pycnanthemum verticillatum v. pilosum</i>	Hairy Mountain Mint	Prairie
<i>Vernonia fasciculata</i>	Common Ironweed	Prairie,Edge
<i>Pycnanthemum virginianum</i>	Common Mountain Mint	Prairie
<i>Asclepias incarnata</i>	Swamp Milkweed	Prairie
<i>Echinacea purpurea</i>	Purple Coneflower	Prairie,Woodland
<i>Hibiscus lasiocarpus</i>	Rose Mallow	Prairie,Edge
<i>Lycopus americanus</i>	American Bugleweed	Prairie

<i>Cynanchum laeve</i>	Honeyvine Milkweed	Prairie,Edge
<i>Sium suave</i>	Water Parsnip	Prairie,Edge
<i>Silphium terebinthinaceum</i>	Prairie Dock	Prairie
<i>Euthamia graminifolia</i>	Flat-top Goldenrod	Prairie,Edge
<i>Oenothera biennis</i>	Common Evening Primrose	Prairie
<i>Prunella vulgaris var. lanceolata</i>	Self-heal	Prairie,Edge
<i>Helenium autumnale</i>	Sneezeweed	Prairie,Woodland
<i>Helianthus mollis</i>	Downy Sunflower	Prairie,Edge
<i>Lactuca canadensis</i>	Wild Lettuce	Prairie,Edge
<i>Polygonum pensylvanicum</i>	Pennsylvania Smartweed	Prairie,Woodland
<i>Bidens aristosa</i>	Swamp Marigold	Prairie
<i>HUMULUS JAPONICUS</i>	Japanese Hops	Prairie
<i>Agalinis tenuifolia</i>	Slender False Foxglove	Prairie
<i>Lobelia siphilitica</i>	Great Blue Lobelia	Prairie,Woodland,Edge
<i>Symphyotrichum pilosum</i>	Hairy Aster	Prairie,Woodland,Edge
<i>Cirsium discolor</i>	Field Thistle	Prairie
<i>Gentiana andrewsii</i>	Closed Gentian	Prairie
<i>Phlox maculata</i>	Sweet William Phlox	Prairie
<i>Polygonum hydropiper</i>	Water Pepper	Prairie,Woodland
<i>Solidago sp.</i>	Goldenrod	Prairie,Woodland
<i>Solidago speciosa</i>	Showy Goldenrod	Prairie
<i>Senna marilandica</i>	Maryland Senna	Prairie,Edge
<i>Sanguinaria canadensis</i>	Bloodroot	Woodland
<i>VINCA MINOR</i>	Periwinkle	Woodland
<i>Cardamine concatenata</i>	Toothwort	Woodland
<i>Mertensia virginica</i>	Virginia Bluebells	Woodland
<i>Prunus americana</i>	Wild Plum	Woodland,Edge
<i>Ribes missouriense</i>	Missouri Gooseberry	Woodland
<i>Cercis canadensis</i>	Eastern Redbud	Woodland,Edge
<i>Chaerophyllum procumbens</i>	Wild Chervil	Woodland
<i>Stylophorum diphyllum</i>	Celandine Poppy	Woodland
<i>Arisaema triphyllum</i>	Jack-in-the-Pulpit	Woodland
<i>Hydrophyllum appendiculatum</i>	Woolen Breeches	Woodland
<i>Hydrophyllum virginianum</i>	Virginia Waterleaf	Woodland
<i>Tradescantia ernestiana</i>	Palmer's Spiderwort	Woodland
<i>Ptelea trifoliata</i>	Hop Tree	Woodland

<i>Allium canadense</i>	Wild Garlic	Prairie,Woodland
<i>Cryptotaenia canadensis</i>	Honewort	Woodland,Edge
<i>Circaea lutetiana</i>	Enchanters Nightshade	Woodland
<i>Phryma leptostachya</i>	Lopseed	Woodland
<i>Oxalis stricta</i>	Common Wood Sorrel	Woodland,Edge
<i>Anemone virginiana</i>	Tall Anemone	Woodland,Edge
<i>Plantago rugelii</i>	Red Stalked Plantain	Woodland
<i>Geum vernum</i>	Spring Avens	Woodland,Edge
<i>Scutellaria incana</i>	Downy Skullcap	Woodland,Edge
<i>LIRIOPE SPICATA</i>	Monkey Grass	Woodland
<i>Agastache nepetoides</i>	Yellow Giant Hyssop	Woodland
<i>Laportea canadensis</i>	Wood Nettle	Woodland
<i>Lactuca floridana</i>	Blue Lettuce	Woodland
<i>Lobelia inflata</i>	Indian Tobacco	Woodland,Edge
<i>Impatiens pallida</i>	Pale Touch-Me-Not	Prairie,Woodland
<i>Lobelia cardinalis</i>	Cardinal Flower	Woodland,Edge
<i>Solidago rugosa</i>	Cliff Goldenrod	Woodland
<i>Solidago flexicaulis</i>	Zigzag Goldenrod	Woodland
<i>Verbena hastata</i>	Blue Vervain	Prairie
<i>FILIPENDULA ULMARIA</i>	Queen of the Meadow	Prairie
<i>ALLIUM CEPA</i>	Wild Onion	Prairie
<i>Desmanthus illinoensis</i>	Illinois Bundle Flower	Prairie
<i>Silphium laciniatum</i>	Compass Plant	Prairie
<i>Vernonia baldwinii</i>	Western Ironweed	Prairie,Edge
<i>Ambrosia artemisiifolia</i>	Common Ragweed	Prairie
<i>Desmodium paniculatum</i>	Panicled Tick Trefoil	Prairie
<i>Cirsium altissimum</i>	Tall Thistle	Prairie
<i>Physostegia virginiana</i>	False Dragonhead / Obedient Plant	Prairie
<i>Oligoneuron rigidum</i>	Stiff Goldenrod	Prairie
<i>Helenium flexuosum</i>	Purple-Head Sneezeweed	Prairie
<i>Acer saccharinum</i>	Silver Maple	Edge
<i>Corylus americana</i>	Hazelnut	Edge
<i>Aesculus pavia</i>	Red Buckeye	Edge
<i>Aquilegia canadensis</i>	Columbine	Edge
<i>Potentilla simplex</i>	Common Cinquefoil	Prairie,Edge
<i>Physocarpus opulifolius</i>	Ninebark	Edge

<i>Viburnum dentatum</i>	Southern Arrowwood	Edge
<i>Erigeron philadelphicus</i>	Marsh Fleabane	Edge
<i>Hypericum punctatum</i>	Spotted St. John's Wort	Edge
<i>Filipendula rubra</i>	Queen of the Prairie	Edge
<i>CICHORIUM INTYBUS</i>	Common Chickory	Edge
<i>Hypericum mutilum</i>	Weak/Dwarf St. John's Wort	Edge
<i>Amphicarpaea bracteata</i>	American Hog Peanut	Edge
<i>Cuscuta sp.</i>	Dodder	Edge
<i>Cuscuta gronovii</i>	Scaldweed	Edge
<i>Bidens tripartita</i>	Swamp Beggar Ticks	Woodland,Edge
<i>Nothoscordum bivalve</i>	False Garlic	Prairie
<i>Carex shortiana</i>	Short's Sedge	Prairie
<i>Sanicula canadensis</i>	Black Snakeroot	Prairie
<i>Eutrochium fistulosum</i>	Hollow Joe Pye Weed	Prairie
<i>Liatris pycnostachya</i>	Prairie Blazing Star	Prairie
<i>Strophostyles helvola</i>	Trailing Wild Bean / Amberique Bean	Prairie
<i>Eupatorium perfoliatum</i>	Common Boneset	Prairie
<i>Strophostyles umbellata</i>	Wild Pink Bean	Prairie
<i>Lindera benzoin</i>	Spice Bush	Woodland
<i>Asimina triloba</i>	Pawpaw	Woodland
<i>Ranunculus hispidus</i>	Hispid Buttercup	Woodland
<i>Viola striata</i>	Pale Violet	Woodland
<i>Phacelia purshii</i>	Miami Mist	Woodland
<i>Geranium maculatum</i>	Wild Geranium	Woodland
<i>Osmorhiza claytonii</i>	Sweet Cicely	Woodland
<i>Iodanthus pinnatifidus</i>	Purple Rocket	Woodland
<i>Spigelia marilandica</i>	Indian Pink	Woodland
<i>Urtica dioica</i>	Stinging Nettle	Woodland



**Figure 1. chart showing the relative bloom period for each species found in the prairie transects.**

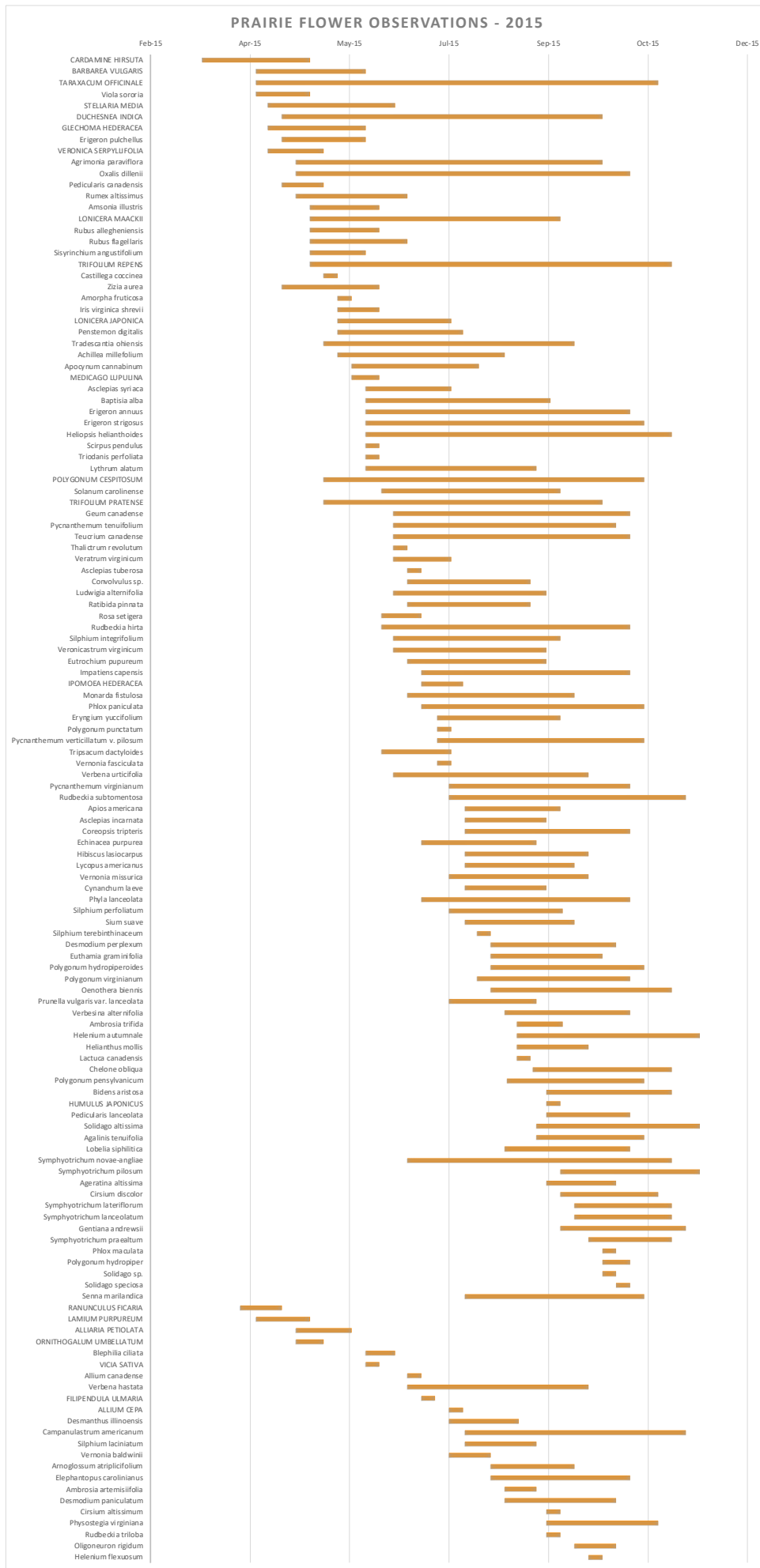


Figure 2. chart showing the relative bloom period for each species found in the woodland transects.

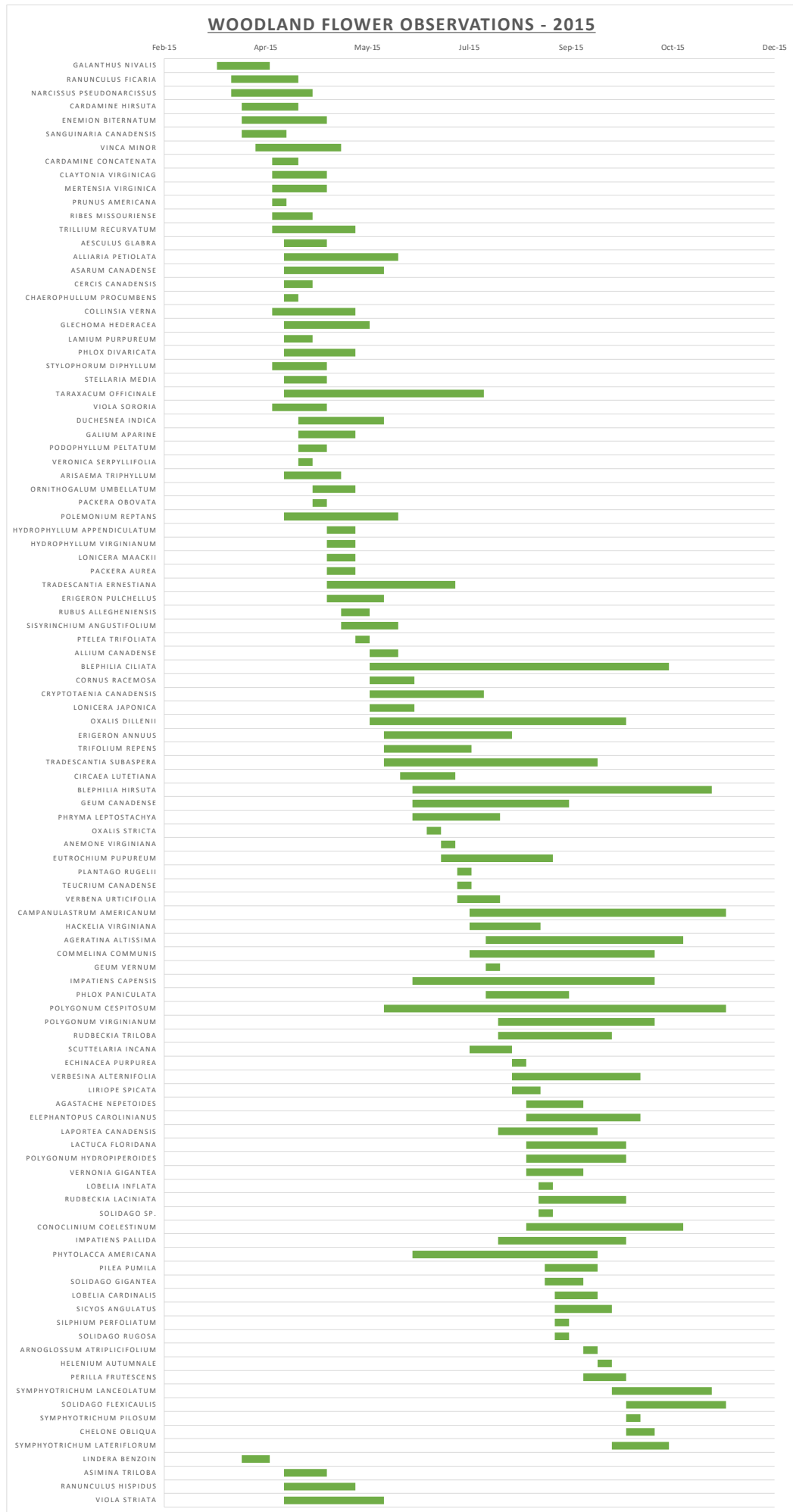


Figure 3. chart showing the relative bloom period for each species found along the edge transects.

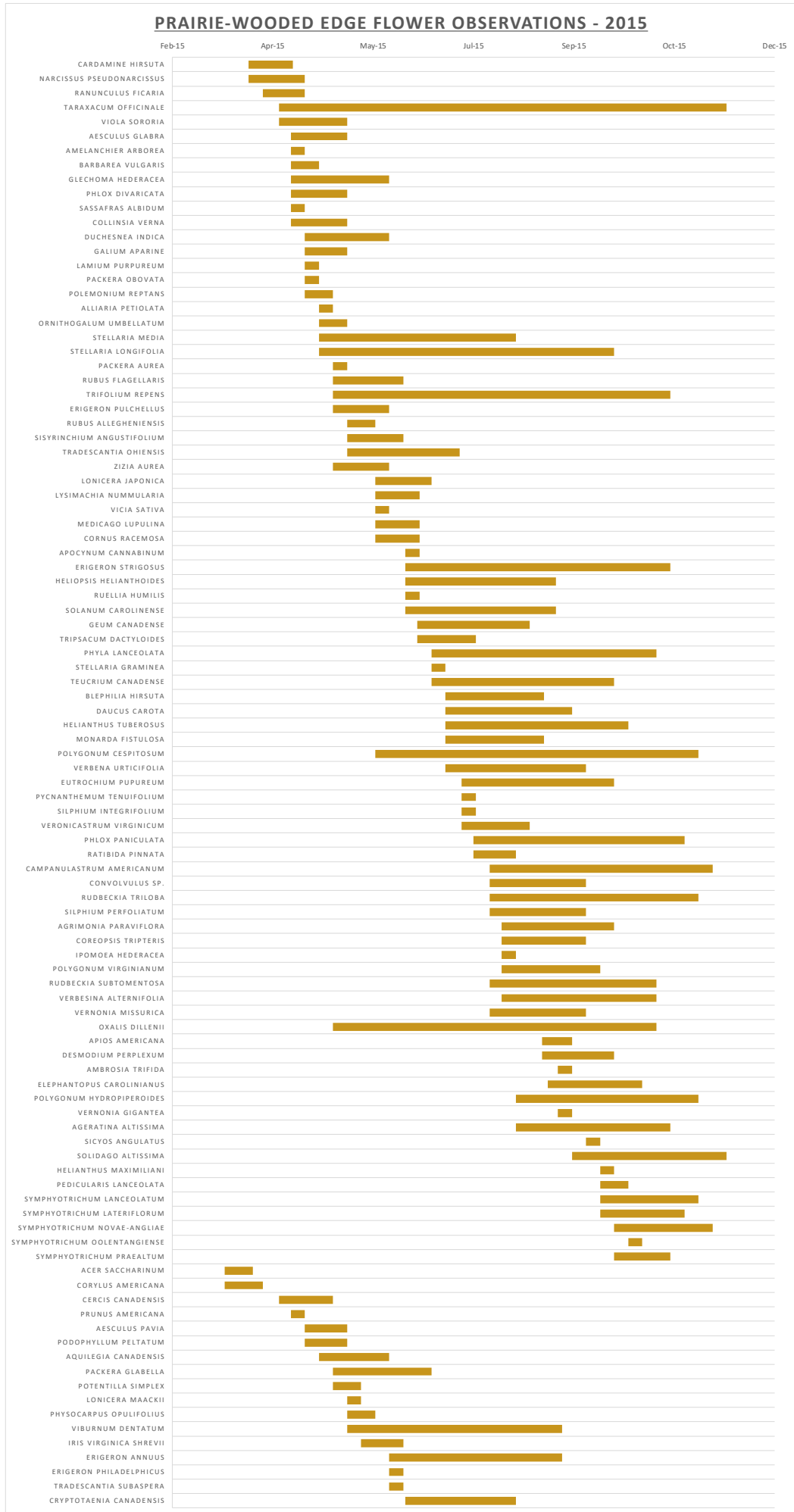


Figure 4. Graph of species observations by transect over time. Each line tracks the number of observations on each transect over the course of the phenology season.

