

Amphibians

Group leader: John Miller

Northern cricket frog (*Acris crepitans*)

Ants

Great leader: James Trager. The following is James' report.

Annotated ant list for Penn-Sylvania prairie, by subfamily. This list of 12 species certainly doesn't represent all that occur at the site, but is a typical list of prairie ants for one brief sampling period on a fairly uniform, unglaciated prairie remnant. For comparison, Prairie State Park prairies, somewhat better sampled than Penn-Sylvania, are known to harbor about twice as many species. Tucker Prairie, a moister site that was probably once glaciated, also contains about twice as many species in two more subfamilies, but including some that are rare or absent in unglaciated prairie, and lacking some in this list. Mesic prairie remnants in the Chicago area, with their greater representation of *Myrmica* and *Formica* species, may have even more. In contrast to wooded habitats, up to a point, prairie remnants of the glaciated region contain more ant species than those of the unglaciated.

Dolichoderinae – An older subfamily than the two below, almost cosmopolitan, but with much richer generic diversity in former Gondwana. The sting is vestigial, but these have aromatic defensive liquids secreted by glands associated with the sting vestige that are quite effective in repelling enemies. Food is mainly sweets (honeydew, extrafloral and floral nectar) and scavenged protein, but groups of workers may subdue prey by “drawing and quartering.”

Forelius pruinosus – A fast-moving and very heat tolerant ant, 2 mm, dull brown or reddish gray ant found in open habitats from the Great Plains to western South America.

Tapinoma sessile – Thought to be the closest thing to a ubiquitous ant in temperate North America, found in virtually all habitats, coast to coast. Recent genetic studies indicate differentiation into four major subpopulations, of which the Missouri population is part of the “southern group”, whether from a forest, fen, prairie or your kitchen. This ant is variable; black to brownish gray, 2-2.5 mm long, living in small, single-queen colonies or huge, multiple-queen mega-colonies. Its English name, “odorous house ant,” refers to its scent glands.

Formicinae – The second largest ant subfamily, with species in most ant-inhabitable natural communities of the world. These also have a vestigial sting, but have a very effective nozzle system for delivering concentrated formic acid from the venom gland, both for defense and to subdue prey. Also fond of sweets, but with a higher proportion of protein in the diet of most, compared to dolichoderines.

Formica incerta – A very characteristic, yellowish brown to brown, shiny, 4-5 mm. ant of open habitats of temperate eastern North America; found in prairies, old fields, power line cuts, and unkempt lawns and campuses. I have encountered it in almost every tallgrass prairie I've sampled all over the Midwest, and it also occurs in the highly disjunct bluestem prairies at the base of the Rocky Mountains. Often seen tending honeydew secreting insects on sunflower, ironweed, thistle and other plants.

Lasius neoniger – This is the “cornfield ant,” of well-drained and/or sandy open ground, mostly east of the Rockies. It is light reddish brown, covered with fine fuzz that dulls the surface, and is about 3 mm long. It typically occurs on areas of soil disturbance such as roadsides, sandy river banks and pastures, but appears to have originated in natural habitats of the Great Plains, then spread to such human-created places more recently. Often seen tending honeydew secreting insects on sunflower, ironweed, thistle and other plants.

Nylanderia parvula – A common, small (2 mm) ant of prairies and other open habitats in eastern North America. It is dark brown, shiny, and fast moving.

Myrmicinae – This is the largest subfamily of ants in genera and species, also the most diverse ecologically. Different lineages include predators, seed-harvesters, generalists, or fungus growers, other specialized forms.

Aphaenogaster carolinensis – An abundant, slender, dark brown, shiny, 3.5 mm ant, with a reduced sting, found in many habitats (though more often in woods and forests) in temperate eastern North America. It gathers seeds with elaiosomes and is a predator of small, soft-bodied invertebrates, killing it by biting with the mandibles.

Aphaenogaster N16 – Quite similar to the previous species in appearance and habits, but this one is restricted to prairies and old fields, and has a slightly broader head (visible with magnification) and notably lighter colored thorax. This common, but undescribed species is designated here by a code indicating its haploid chromosome number.

Crematogaster lineolata – A common, black 2.5 mm ant with a distinctive heart-shaped abdomen that it can raise up over its back. The sting is flattened at the tip and is used to smear acrid venom on enemies and occasionally on prey, using the flexible movements of the abdomen. These ants gather seeds with elaiosomes and prey on small invertebrates to some extent, and are often seen tending honeydew secreting insects on sunflower, ironweed, thistle and other plants.

Monomorium minimum – This is the appropriately name “little black ant,” slender, shiny and only 1.5 mm long. It is a generalist forager, scavenger and gatherer of honeydew and other available sweets. Originally a prairie and savanna ant, this one is now also common in human-created habitats.

Myrmica af-evani – This is a typical grassland ant, typically found anywhere that *F. incerta* might be. It is slender, but a bit stouter than the *Aphaenogaster* spp., less shiny, and redder in color. Under magnification, it has a characteristic right-angular bend at the base of the antenna. It is a predator of other insects and spiders, but also scavenges, and tends honeydew-secreting insects on sunflower, ironweed, thistle and other plants. This one can give a sweat bee like sting when handled. The name used here is a code name pending publication of a new name for this ant long known as, but actually distinct from, *Myrmica americana*.

Solenopsis molesta – This minute brownish yellow ant barely reaches 1.25 mm in length, and though very abundant, often goes unnoticed because of its small size and earth or straw-like color. It forages underground and on the surface for dead or dying insects and other invertebrates, and also tends subterranean aphids and on plant roots. It may also live adjacent to the nests of larger ants, invading them to steal food or prey on larvae through tiny connecting tunnels, hence the name “thief ant.”

Temnothorax pergandei – A characteristic grassland ant of southern pine savannas, unglaciated prairies and other southern US grassland types. Black, slender and small, at a glance this looks like an oversized (2.5 mm) *Monomorium*, but it forages singly for tiny prey rather than recruiting en masse to larger food items.

Birds

Group leader: Bruce Schuette

Eastern Meadowlark	11 recorded during 'bioblitz'
Dickcissel	16 recorded during 'bioblitz'
Henslow's Sparrow	5 recorded during 'bioblitz'
Grasshopper Sparrow	3 recorded during 'bioblitz'
Barn Swallow	3 recorded during 'bioblitz'
Northern Bobwhite	3 recorded during 'bioblitz'
Red-winged Blackbird	8 recorded during 'bioblitz'
Great Blue Heron	2 recorded during 'bioblitz'
Brown-headed Cowbird	2 recorded during 'bioblitz'
Common Yellowthroat	2 recorded during 'bioblitz'
Killdeer	1 recorded during 'bioblitz'

Bryophytes (mosses, liverworts, and hornworts)

Collections by Nels Holmberg and the Bioblitz team

Determinations by Carl E. Darigo

<i>Latin name</i>	Common Name
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<i>Atrichum altecristatum</i>	A Catherine moss
<i>Aulacomnium palustre</i>	Ribbed Bog Moss
<i>Bryum argenteum</i>	Silver moss
<i>Bryum caespiticium</i>	Long-celled thread moss
<i>Bryum pseudotriquetrum</i>	Fall clustered thread moss
<i>Campylium chrysophyllum</i>	Curved leaf moss
<i>Ditrichum pallidum</i>	Yellow stalk moss
<i>Entodon seductrix</i>	Glossy moss
<i>Eurhynchium hians</i>	Beaked moss
<i>Eurhynchium pulchellum</i> var. <i>pulchellum</i>	Smooth beaked moss
<i>Fissidens dubius</i>	a plume moss
<i>Fontinalis sullivantii</i> (or <i>welchiana</i>)	an aquatic moss
<i>Grimmia laevigata</i>	Grimmia moss
<i>Hedwigia ciliata</i>	Hedwig's fringe leaf moss
<i>Helodium paludosum</i>	helodium moss
<i>Phaeoceros carolinianus</i>	A hornwort
<i>Plagiomnium cuspidatum</i>	Woody moss
<i>Pyscomitrium pyriforme</i> (?)	Urn moss

Stereocleus serrulatus
Weissia controversa

Twisted tip moss
Controverted green moss

Sorted by Habitat

burned prairie

Bryum pseudotriquetrum.
Campyllum chrysophyllum
Fissidens dubius
Pyscomitrium pyriforme (?)
Stereocleus serrulatus (mima mound)
Weissia controversa

erosion ditch

Ditrichum pallidum

in stream

Fontinalis sullivantii (or *welchiana*)

pond bank

Phaeoceros carolinianus
Aulacomnium palustre
Helodium paludosum

sandstone outcrop

Bryum argenteum
Bryum caespiticium
Campyllum chrysophyllum
Entodon seductrix
Grimmia laevigata
Hedwigia ciliata
Weissia controversa

stream bank

Atrichum altecristatum
Aulacomnium palustre
Campyllum chrysophyllum
Eurhynchium pulchellum var. *pulchellum*
Plagiomnium cuspidatum
Stereocleus serrulatus

wet swale

Bryum caespiticium
Bryum pseudotriquetrum
Campyllum chrysophyllum

Eurhynchium hians
Plagiomnium cuspidatum
Steerecleus serrulatus

Butterflies

Group leaders: Phil Koenig, Richard Thoma

Family	Species	Common Name
Hesperiidae	<i>Thorybes bathyllus</i>	Southern Cloudy Wing
	<i>Epargyreus clarus clarus</i>	Silver-spotted Skipper
	<i>Polites peckius</i>	Peck's Skipper
	<i>Ancyloxypha numitor</i>	Least Skipper
	<i>Polites themistocles</i>	Tawny-edge Skipper
Papilionidae	<i>Papilio troilus troilus</i>	Spicebush Swallowtail
Pieridae	<i>Colias eurytheme</i>	Alfalfa Butterfly
	<i>Pieris rapae</i>	Cabbage White
	<i>Pyrisitia lisa lisa</i>	Little Sulfur
	<i>Zerene cesonia cesonia</i>	Dog-faced Sulfur
Lycaenidae	<i>Hyllolycaena hyllus</i>	Bronze Copper
	<i>Strymon melinus</i>	Gray Hairstreak
	<i>Celastrina neglecta</i>	Summer Azure
	<i>Everes comyntas comyntas</i>	Eastern-tailed Blue
Nymphalidae	<i>Euptoieta claudia</i>	Variegated Fritillary
	<i>Vanessa virginiensis</i>	American Painted Lady
	<i>Vanessa cardui</i>	Painted Lady
	<i>Polygonia interrogationis</i>	Question Mark
	<i>Vanessa atalanta rubria</i>	Red Admiral
Danaidae	<i>Danaus plexippus</i>	Monarch

Reptiles

Group leader: John Miller

Ornate box turtle (*Terrapene ornate ornate*)

Midland brown snake (*Storeria dekayi wrightorum*)

Slender glass lizard (*Ophisaurus attenuatus attenuatus*)

Small mammals

Group leader: Debbie Fantz

40 live traps set on drier portions of the prairie; 38 set in wetter area

Deer mouse (*Peromyscus maniculatus*) (six individuals)

Western harvest mouse (*Reithrodontomys megalotis*)

Bats: Group leader: Elizabeth Hamilton. The evening of May 29, a group searched for bats. One bat was located but its species could not be determined.

Snails

Group leaders: Ron Oesch, Nels Holmberg

Aquatic species:

- 2 *Physa cf. halei*, Hale's physa
- 3 *Menetus dilatatus*, the bugle sprite

Terrestrial:

- 4 *Catinella vermeta*, the suboval ambersnail
- 8 *Euchemotrema leai aliciae*, Alice's pillsnail
- 12 *Gastrocopta armifera*, the armed snaggletooth
- 7 *Glyphyalinia indentata*, the carved glyph
- 1 *Helicodiscus parallelus*, the compound coil
- 7 *Pupoides albilabris*, the white-lip dagger
- 1 Strobilops labyrinthicus, the maze pinecone

Vascular Plants

Group leader: Justin Thomas

In 1999, The Nature Conservancy recorded 253 native plant taxa (and 35 introduced taxa) from Penn-Sylvania Prairie. During the BioBlitz, the following species were documented and added to the list:

New Species to the List

Acalypha gracilens

Asclepias viridis

Aster dumosus

Baptisia leucantha

Callitriche heterophylla

Callitriche terrestris

Calopogon oklahomensis

Camassia scilloides (in addition to *C. angusta*)

Carex frankii

Carex grisea

Carex oklahomensis

Celatris scandens

Crotolaria sagittalis

Delphinium carolinianum

Eleocharis wolfii

Habenaria lacera

Juncus tenuis v. *anthelatus*

Krigia dandelion

Lithospermum arvense

Luzula campestris

Panicum polyanthes

Panicum praecocius

A. dumosus is not a great name for this common entity of our prairies, but one seems to know what to call it.

I have a voucher for this. The plant was fully in fruit, smaller, lacking bracts, and with stout fruits. No doubt *C. scilloides*.

May have been called *C. stipata* on previous list. Quite common throughout the swales on the site.

Now called *Platanthera lacera*

I'm not sure which subspecies/variety

This is a good species that is restricted to the Tallgrass Prairie Ecoregion. Shamefully lumped into *P. acuminatum*. Steyermark accepted it, so it should be.

go on the list, IMO.

This critter's name is tentative but it likely represents a new taxon for Missouri. FNA would call it *Dichantheium ovale* var. *pseudopubescens* collected a voucher to run by GY.

This is another good species that has been lumped into *P. acuminatum* (*ovale*). Steyermarks recognized it so it could go on the list.

Panicum pseudopubescens

Panicum villosissimum

Penstemon digitalis

Polytaenia nuttallii

Potentilla recta

Scirpus georgianus

Solidago graminifolia

Strophostyles leiosperma

Doug has *S. atrovirens* on the list, but it has since been split into two sp
All the plants I saw were *S. georgianus* (0-2 bristles below achene).

Confirmed Species to the List

Acalypha virginica

Acer saccharinum

Achillea millefolium

Agrostis alba

Ambrosia artemisiifolia

Ambrosia trifida

Amorpha canescens

Andropogon gerardii

Andropogon scoparius

Andropogon ternarius

Andropogon virginicus

Antennaria neglecta

Apios aericana

Asclepia hirtella

Asclepias verticillata

Aster azureus

Aster ericoides

Aster patens

Aster praealtus

Baptisia leucophaea

Berbesina heliathoides

Bidens polylepis

Bromis inermis

Cacalia tuberosa

Camassia angusta

Carex annectens

Carex bushii

Carex meadii

Carex scoparius

Cassia fasciculata

Castilleja coccinea
Ceanothus americanus
Celtis occidentalis
Chrysanthemum
leucanthemum
Cirsium discolor
Comandra richardsiana
Coreopsis crandiflora
Coreopsis palmata
Cornus drummondii
Desmodium sessilifolium
Diospyros virginiana
Dodecatheon meadia
Echinacea pallida
Eleocharis smallii
Eleocharis tenuis
Elymus virginicus
Erechtites hieracifolia
Erigeron strigosus
Eryngium yuccifolium
Eupatorium perfoliatum
Euphorbia corollata
Festuca elatior
Fimbristylis caroliniana
Fragaria virginiana
Galium aparine
Galium obtusum
Galium pedmontanum
Gentiana puberula
Helianthus grosseserratus
Heliantus mollis
Hieracium longipilum
Juncus acuminatus
Juncus biflorus
Juncus brachycarpus
Juncus dudleyi
Juncus effusus
Koeleria cristata
Leersia oryzoides
Lespedeza capitata
Lespedeza violacea
Lespedeza virginica
Liatris pycnostachya
Linum sulcatum
Lithospermum canescens
Lobelia spicata

Lonicera japonica
Ludwigia alternifolia
Ludwigia palustris
Lycopus americanus
Nothoscordum bivalve
Oxalis stricta
Oxalis violacea
Panicum lanuginosum
faciculatum
Panicum oligosanthos
scribnerianum
Panicum scoparium
Panicum sphaerocarpon
Pedicularis canadensis
Penstemon tubaeiflorus
Petalostemon candidum
Petalostemon purpureum
Phlox pilosa
Physalis heterophylla
Physostegia virginiana
Plantago virginica
Poa pratensis
Polygonum punctatum
Potentilla simplex
Prunella vulgaris lanceolata
Psoralea psoralioides
Pycnanthemum tenuifolium
Rosa carolina
Rosa multiflora
Rosa setigera
Rubus flagellaris
Rubus pensilvanicus
Rudbeckia subtomentosa
Ruellia humilis
Sassafras albidum
Schrankia uncinata
Scirpus lineatus
Scleria triglomerata
Setaria geniculata
Silphium integrifolium
Sisyrinchium campestre
Solidago altissima
Solidago gigantea
Solidago gymnospermoides
Solidago missouriensis
Solidago rigida

Solidago speciosa
Sparina pectinata
Specularia perfoliata
Sporobolus heterolepis
Symphoricarpos orbiculatus
Tephrosia virginiana
Tradescantia ohiensis
Tridens flavus
Tripsacum dactyloides
Ulmus rubra
Valerianella radiata
Verbena hastata
Vernonia baldwinii
Viola sagittata

Lists for beetles, bees, and moths are still being compiled.