

Plants that attract pollinators and natural enemies



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EXTENSION

Solutions in your community

Who are the
pollinators

Bees

Helpful hints to tell the difference between

Bees

and

Wasps



Fuzzy

Little to no hair

**Help humans by
pollinating our plants**

**Help humans by eating
other insects**

Eat pollen and nectar

**Eat human food that is
laying around**

**Gentle in nature and
rarely sting**

**Aggressive and ready to
sting**

**Legs are usually hidden
when flying**

**Legs hang down when
flying**



Honey bee

Apis mellifera



Bumble Bees of the Eastern United States

Introduction
Bumble bees are members of the genus *Bombus* in the family *Bombidae*. They are characterized by their large, fuzzy bodies and their ability to fly in cooler temperatures. In the Eastern United States, there are 15 species of bumble bees. This guide provides information on their distribution, life cycle, and conservation.

Species
The following table lists the 15 species of bumble bees found in the Eastern United States, along with their distribution and life cycle details.

Species	Distribution	Life Cycle
<i>Bombus affinis</i>	Common in the Northeast and Midwest.	Annual
<i>Bombus agrorum</i>	Common in the Northeast and Midwest.	Annual
<i>Bombus terrestris</i>	Common in the Northeast and Midwest.	Annual
<i>Bombus pennsylvanicus</i>	Common in the Northeast and Midwest.	Annual
<i>Bombus fervens</i>	Common in the Northeast and Midwest.	Annual
<i>Bombus lucorum</i>	Common in the Northeast and Midwest.	Annual
<i>Bombus impatiens</i>	Common in the Northeast and Midwest.	Annual
<i>Bombus fervens</i>	Common in the Northeast and Midwest.	Annual
<i>Bombus lucorum</i>	Common in the Northeast and Midwest.	Annual
<i>Bombus impatiens</i>	Common in the Northeast and Midwest.	Annual
<i>Bombus fervens</i>	Common in the Northeast and Midwest.	Annual
<i>Bombus lucorum</i>	Common in the Northeast and Midwest.	Annual
<i>Bombus impatiens</i>	Common in the Northeast and Midwest.	Annual
<i>Bombus fervens</i>	Common in the Northeast and Midwest.	Annual
<i>Bombus lucorum</i>	Common in the Northeast and Midwest.	Annual





Bumble Bee

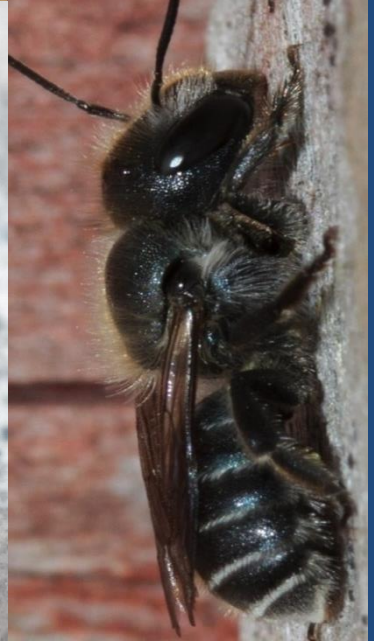
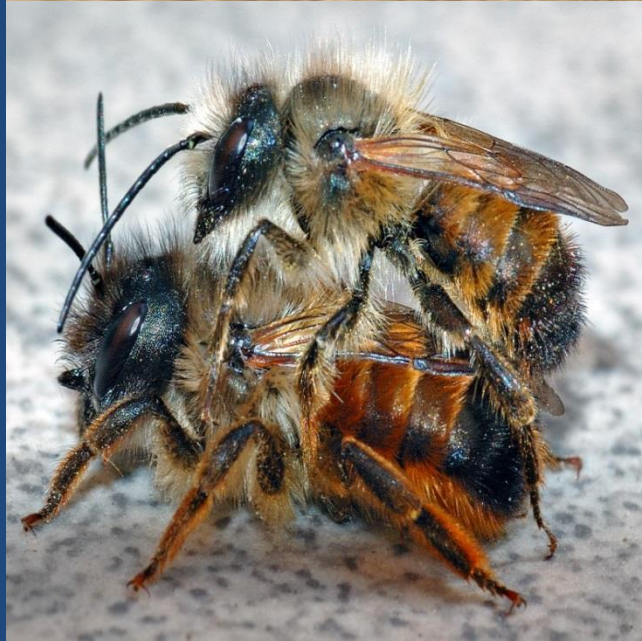
Carpenter Bee





Mason Bees

Orchard Mason Bee
(*Osmia* spp)
early season



Leaf-cutter Bee

(Megachile spp)

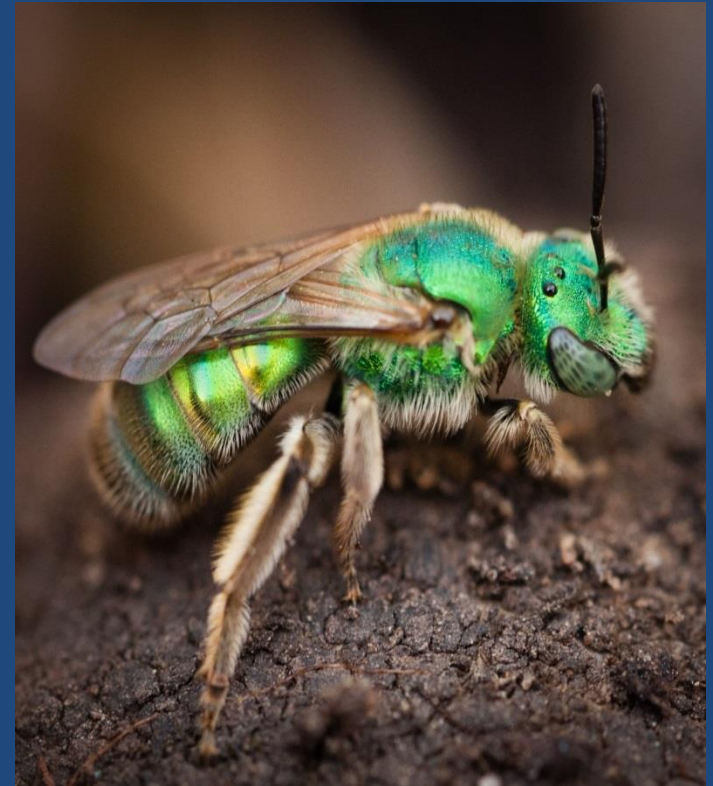
Soft rotted wood or pithy plants—rose. Cut lvs of green ash, lilac and Virginia creeper later season



Sweat (Halictid) Bee

(Agapostemon spp)

Solitary to Eusocial
ground nesters in bare soil
early season



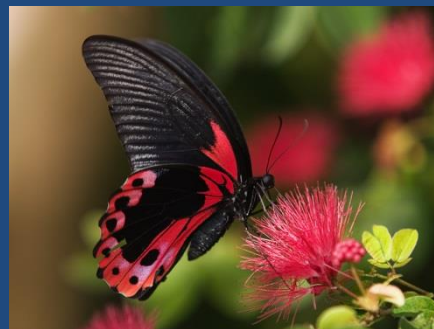
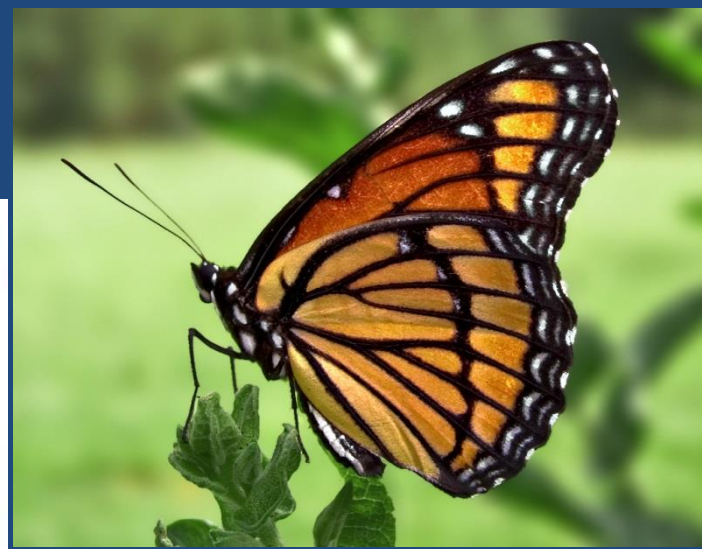
Pollen Wasp

(Pseudomasaris spp)





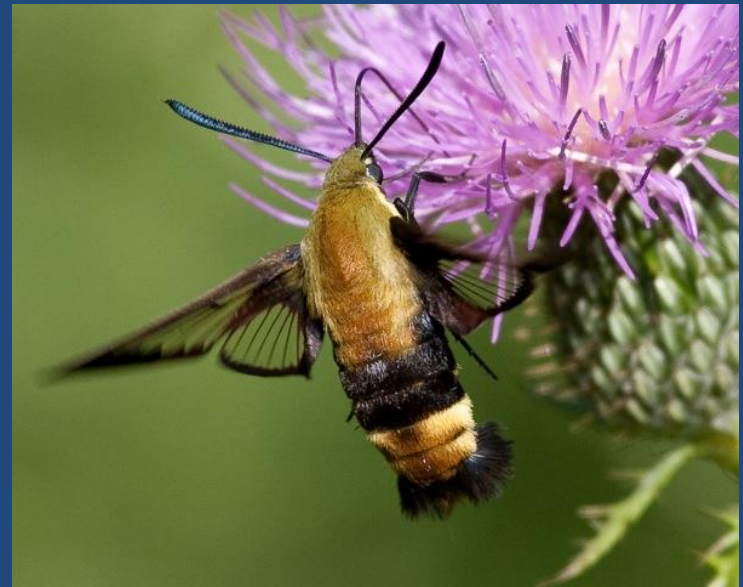
Butterflies and Moths



Sphinx or Hummingbird Moths

Prefer pale or white flowers that open in the evening and that have a strong, sweet smell. Adults take nectar from columbine and honeysuckle. Caterpillars feed on evening primrose.





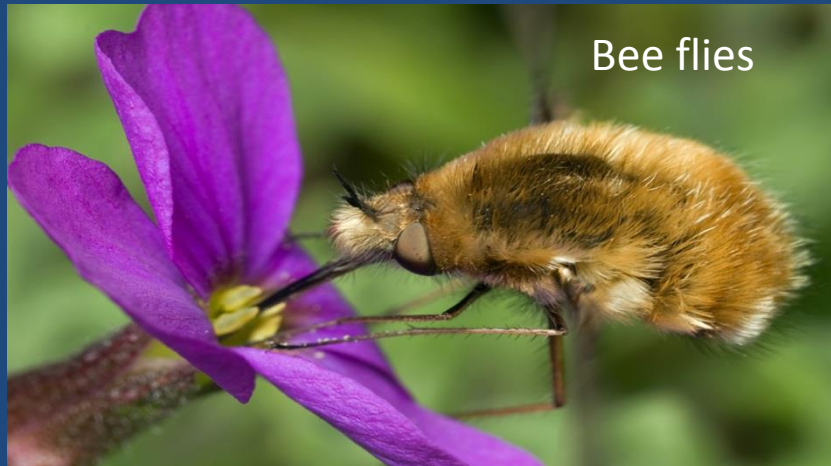
Centranthus, Jasminum, Buddleia, Nicotiana, Primula, Viola, Syringa, Verbena, Echium, Phlox, and Stachys.

Hover flies

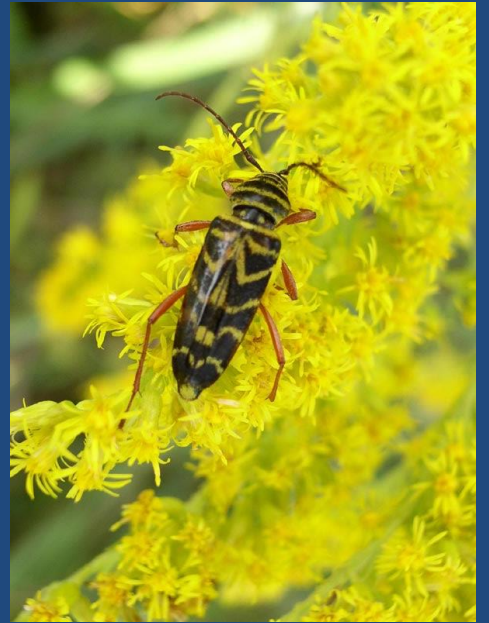
(Syrphid)



Tachinid and other flies



Beetles



Plants for pollinators

TOP FLOWERS FOR BEES

Cosmos

Aster

Sunflowers

Calendulas or marigolds

Primulas

Rudbeika

Scabious or cornflowers

Lavender

Bluebells

Hellebores

Clematis

Crocus

Mint

Rosemary

Thyme

Hebe

Borage

Echinacea

Mignotette

Thrift or Sea Pink

Sedums

Sweet Williams

Monarda

Cornflower

Poppies

Verbena Bonariensis

Snapdragons

Ageratum

Echinops

Digitalis

RawForBeauty.com

Plant in groups



Select flowers with a range of shapes, sizes and bloom times

Choose different colors of flowers



Tithonia – Mexican sunflower



Helianthus annuus –
annual sunflower



Herbs

Basil



Oregano



Thyme



Russian Sage



Deer resistant, drought tolerant, full sun

Zinnias – use old fashioned varieties



Perennial; full sun; good in heat;
mildew problems; plant seed



Consolida ambigua - Larkspur

Seed themselves;
Plant seed;
Annual;
bloom early summer;
Full sun;
'Annual' delphinium;



Native plants

Lobelia cardinalis – Cardinal Flower



Perennial; damp soil; full/part sun; flowers late summer early fall, do not cut back in the fall

Symphotrichum spp – Smooth Aster



Perennial; flowers mid-late fall; sun

Ceanothus americanus
New Jersey Tea



N_2 fixer; blooms-early-mid spring; part-full shade; drought tolerant

Cephalanthus occidentalis - Buttonbush



Shrub; flowers in clusters in summer; Shade-partial
Can stand wet areas

Clethra alnifolia –
Summersweet



Shrub; blooms summer; sun/part
Likes wet areas

Phlox divaricata – Woodland phlox



Perennial
Well drained, moist soils;
Partial shade
Blooms early to late spring
Can get several diseases

Perennial; long bloom-May-August;
Partial sun to shade; carrot family

Zizia aptera – Heart-leaved alexanders



Penstemon digitalis – Foxglove Penstemon

Perennial; blooms May-June;
Sun or partial sun; loamy soil;
Tubular flowers favor most bees



Perennial; blooms February-June; Partial to shade;
Moist, well drained sandier soils, favors bees and
hummingbirds

Aquilegia canadensis –
Wild Columbine

Monarda didyma - Bee Balm

Perennial; Sun to light shade;
Tolerates wet soils; easy care ;
low maintenance



Monarda fistulosa - Wild
Bergamot (Preferred by
bees)

Flowers June-Sept.; sun;
well drained soils

Allium cernuum
Nodding Onion



Perennial; sun; flowers June-August;
Moist rich soils;

Stokesia laevis - Stoke's Aster



Perennial; blooms May-September if you
remove seeds; Sun to partial shade;
moist, rich well drained soils

Veronicastrum virginicum
Culver's root



Perennial; blooms early to mid summer, no fragrance; sun to part sun;
moist soils



*Agastache
foeniculum*
Anise hyssop

Blooms mid-late summer; fragrant flowers;
Deer resistant; sun; moist-dry soils



Helianthus 'Lemon Queen'
- Sunflower

Blooms August-October; tolerates shade
and drought; 2-inch dia flowers



Echinacea purpurea –
Purple Coneflower

Long bloom period-April-September;
sun to partial shade, dry soils

Asclepias tuberosa
Butterfly weed

Blooms May-September; sun; dry to moist soils;
tends to get aphids; deer resistant



Solidago – Goldenrods

spread by seed and rhizomes;
sun; blooms late summer
through the fall



Eupatorium fistulosum Joe Pye weed

Sun to partial sun; summer or fall bloom;
deer resistant, drought tolerant



Eupatorium perfoliatum
Boneset



Sun, partial sun/shade, shade; Low, moist to wet areas; sweating herb;
blooms June-October;

Natural Enemies

of insect pests

Attracted to flowers

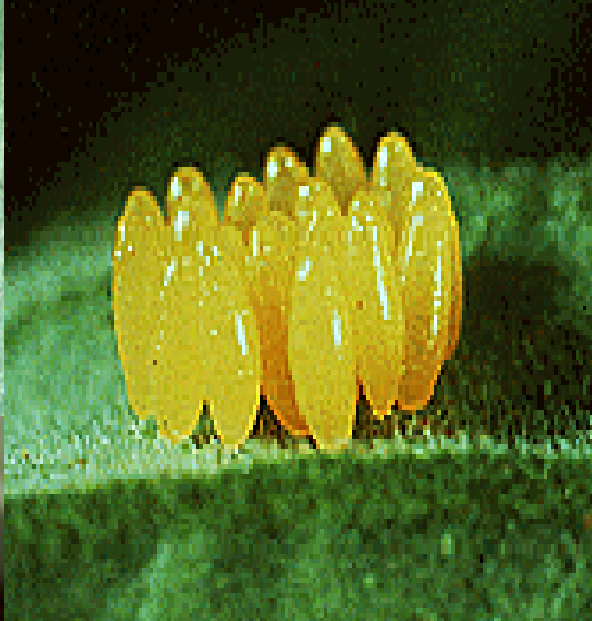


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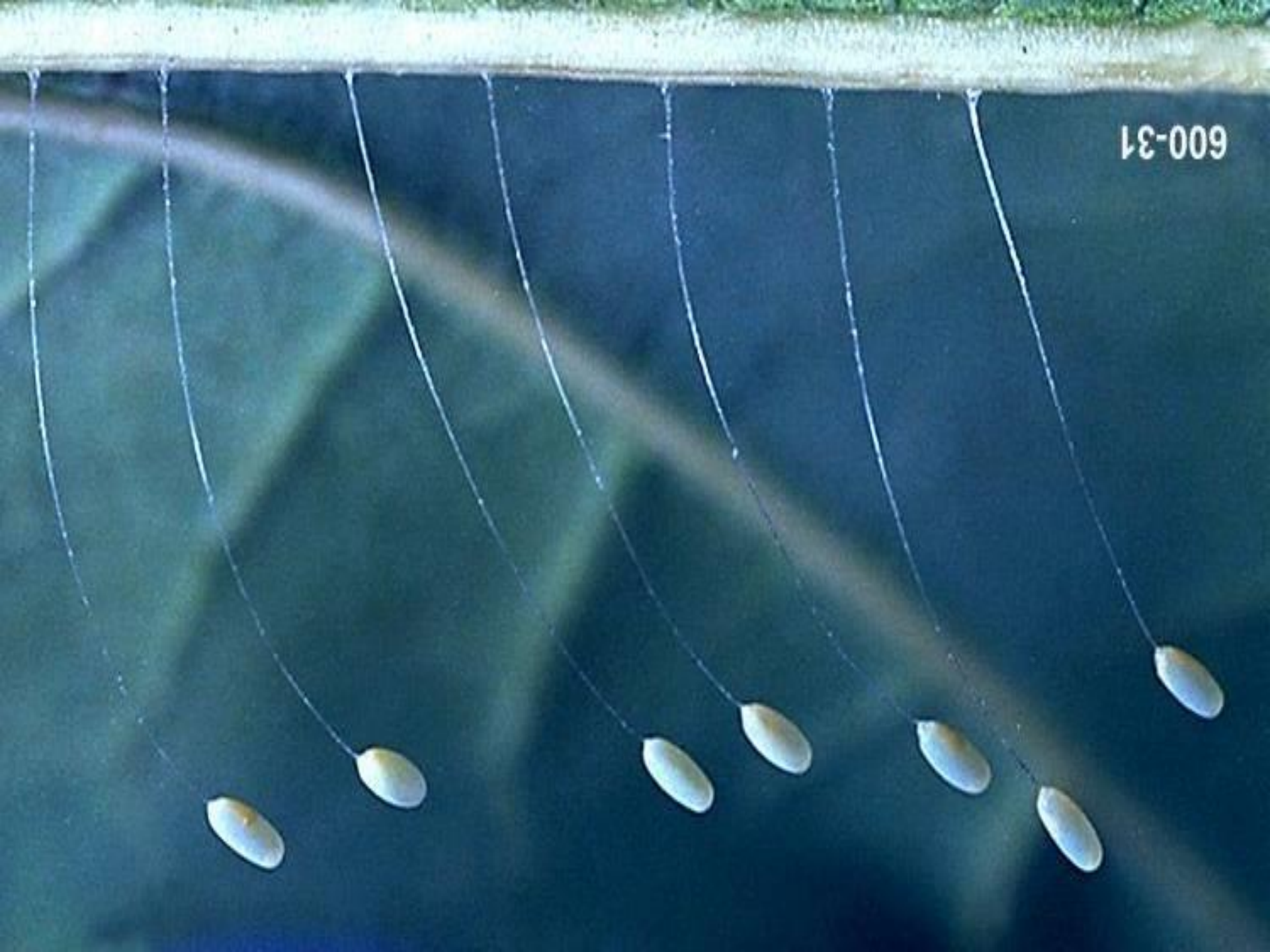








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Orius insidiosus - insidious flower bug









Syrphid fly



Syrphid fly maggot



Tachinids









**Tachinid
larva
inside
stink
bug
adult**





























Plants that
Attract
Natural Enemies

Lacewings

Achillea filipendulina Fern-
leaf yarrow

Anethum graveolens Dill

Angelica gigas Angelica

Anthemis tinctoria Golden
marguerite

Atriplex canescens Four-wing
saltbush

Callirhoe involucrata Purple
poppy mallow

Carum Carvi Caraway

Coriandrum sativum

Coriander

Cosmos bipinnatus Cosmos
white sensation

Daucus Carota Queen Anne's
lace

Foeniculum vulgare Fennel

Helianthus maximilianii

Prairie sunflower

Tanacetum vulgare Tansy

Taraxacum officinale

Dandelion



Dill



Purple poppy mallow



Queen Anne's lace



Tansy

Lady bugs

Achillea filipendulina Fern-leaf yarrow

Achillea millefolium Common yarrow

Ajuga reptans Carpet bugleweed

Alyssum saxatile Basket of Gold

Anethum graveolens Dill

Anthemis tinctoria Golden marguerite

Asclepias tuberosa Butterfly weed

Atriplex canescens Four-wing saltbush

Coriandrum sativum Coriander

Daucus Carota Queen Anne's lace

Fagopyrum esculentum Buckwheat

Foeniculum vulgare Fennel

Helianthus maximiliani Prairie
sunflower

Penstemon strictus Rocky Mt.
penstemon

Potentilla recta 'warrenii' Sulfur
cinquefoil

Potentilla villosa Alpine cinquefoil

Tagetes tenuifolia Marigold - lemon gem

Tanacetum vulgare Tansy

Taraxacum officinale Dandelion

Veronica spicata Spike speedwell

Vicia villosa Hairy vetch

Buckwheat



Marigold - lemon gem



Golden marguerite



Prairie sunflower



Syrphid flies

Achillea filipendulina Fern-leaf yarrow

Achillea millefolium Common yarrow

Ajuga reptans Carpet bugleweed

Allium tanguticum Lavender globe lily

Alyssum saxatilis Basket of Gold

Anethum graveolens Dill

Anthemis tinctoria Golden marguerite

Aster alpinus Dwarf alpine aster

Astrantia major Masterwort

Atriplex canescens Four-wing saltbush

Callirhoe involucrata Purple poppy mallow

Carum Carvi Caraway

Chrysanthemum parthenium Feverfew

Coriandrum sativum Coriander

Linaria vulgaris Butter and eggs

Lobelia erinus Edging lobelia

Lobularia maritima Sweet alyssum - white

Melissa officinalis Lemon balm

Mentha pulegium Pennyroyal

Mentha spicata Spearmint

Monarda fistulosa Wild bergamot

Penstemon strictus Rocky Mt. penstemon

Petroselinum crispum Parsley

Potentilla recta 'warrenii' Sulfur cinquefoil

Potentilla villosa Alpine cinquefoil

Rudbeckia fulgida Gloriosa daisy

Sulfur cinquefoil



Spike speedwell



Zinnia - liliput



Stonecrop



Small parasitic wasps

<u>Achillea filipendulina</u> Fern-leaf yarrow	<u>Linaria vulgaris</u> Butter and eggs
<u>Achillea millefolium</u> Common yarrow	<u>Lobelia erinus</u> Edging lobelia
<u>Allium tanguticum</u> Lavender globe lily	<u>Lobularia maritima</u> Sweet alyssum - white
<u>Anethum graveolens</u> Dill	<u>Melissa officinalis</u> Lemon balm
<u>Anthemis tinctoria</u> Golden marguerite	<u>Mentha pulegium</u> Pennyroyal
<u>Astrantia major</u> Masterwort	<u>Petroselinum crispum</u> Parsley
<u>Callirhoe involucrata</u> Purple poppy mallow	<u>Potentilla recta 'warrenii'</u> Sulfur cinquefoil
<u>Carum Carvi</u> Caraway	<u>Potentilla villosa</u> Alpine cinquefoil
<u>Coriandrum sativum</u> Coriander	<u>Sedum kamtschaticum</u> Orange stonecrop
<u>Cosmos bipinnatus</u> Cosmos white sensation	<u>Tagetes tenuifolia</u> Marigold - lemon gem
<u>Daucus Carota</u> Queen Anne's lace	<u>Tanacetum vulgare</u> Tansy
<u>Foeniculum vulgare</u> Fennel	<u>Thymus serpyllum coccineus</u> Crimson thyme
<u>Limonium latifolium</u> Statice	<u>Zinnia elegans</u> Zinnia - liliput

Tachinids

Anthemis tinctoria Golden marguerite

Petroselinum crispum Parsley

Fagopyrum esculentum Buckwheat

Phacelia tanacetifolia Phacelia

Melissa officinalis Lemon balm

Tanacetum vulgare Tansy

Mentha pulegium Pennyroyal

Thymus serpyllum coccineus Crimson
thyme

Big eyed bugs and Pirate bugs

Carum Carvi Caraway

Mentha spicata Spearmint

Cosmos bipinnatus Cosmos - white
sensation

Solidago virgaurea Peter Pan
goldenrod

Foeniculum vulgare Fennel

Tagetes tenuifolia Marigold - lemon
gem

Medicago sativa Alfalfa

Sunflower

Ground dwelling Natural Enemies of insect pests











A vibrant sunset over the ocean with a bright sun on the right side, casting a glow across the sky and water. The sky transitions from purple and pink to orange and yellow. The ocean is dark with white-capped waves. In the foreground, there is a dark silhouette of grass or a dune.

Questions

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<http://mdvegetables.umd.edu/>