



FLORIDA'S NATIVE POLLINATORS

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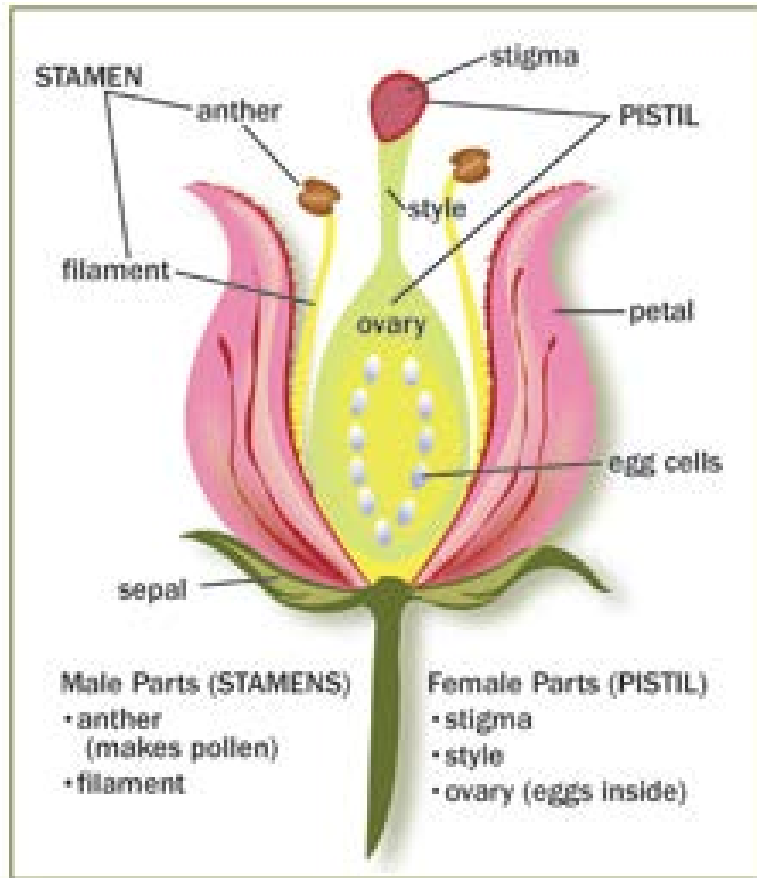
Outline

- Importance
- Native Pollinators
- Native Bees
- Encouraging Pollinators



Importance

- Thousands of native species pollinate > 80% of US flowering plants
 - Not just honeybees!
- Maintain diverse plants and agricultural crops
 - 1 in 3 bites of food
- Losing these unknown species due to habitat loss, etc.
- \$217 Billion impact



Pollination

Native Pollinators

Flies

Beetles

Butterflies

Moths

Wasps

Bees



Native Pollinators: Flies

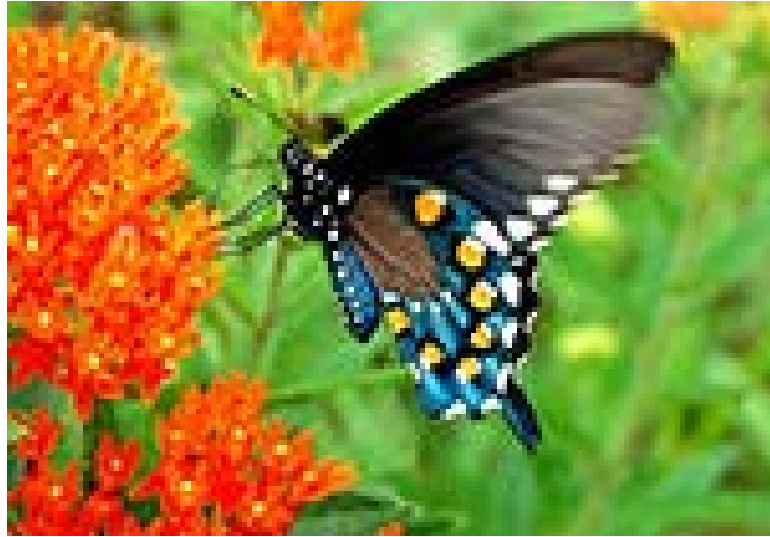
- Most strongly resemble bees and wasps for protection





Native Pollinators: Beetles

- Gather pollen and nectar



Native Pollinators: Butterflies

- Long straw mouthpart to collect nectar



Native Pollinators: Moths

- Long straw mouthpart to collect nectar

Native Pollinators: Wasps

- Good natural enemies of pests too
- Most live solitary





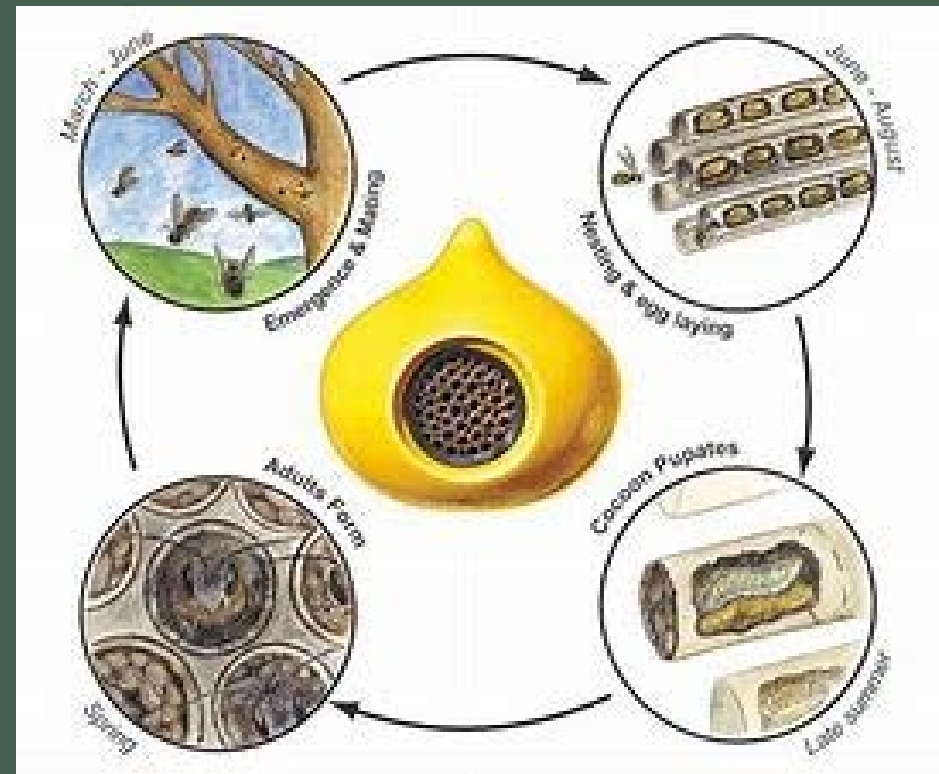
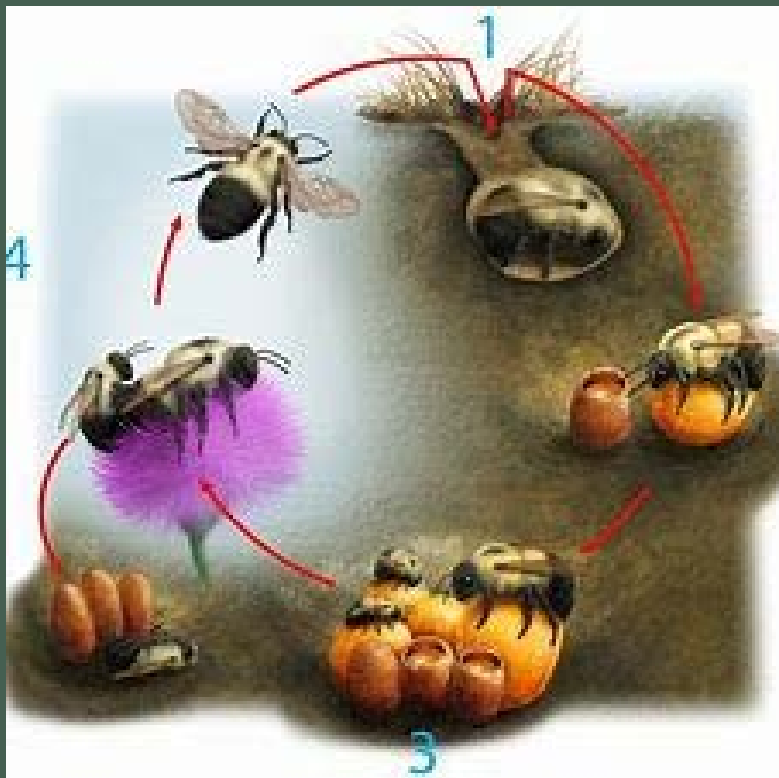
Native Pollinators: Bees

- Over 4,000 species in US
- Over 320 species in Florida
- Sweat, leafcutter, mason, bumble, carpenter, long-horned, mining, plasterer, cuckoo
- Most nest in soil (70%) or trees/hollow stems
- Most are solitary and not aggressive

Native Pollinators: Bees



Native Bee Life Cycles



Encouraging native pollinators

- Plant native wildflowers
- Provide nesting habitat
- Spray wisely and minimize mowing

Plant native wildflowers

- Most attractive colors: blue, purple, white and yellow
- At least three species in bloom every season



Common name	Scientific name	Light	Color of bloom	Bloom season	Soil moisture	Region	Growth habit
Milkweed	<i>Asclepias</i> spp.		Various			NCS	1–3 ft
Wild indigo	<i>Baptisia</i> spp.					NC	2–3 ft
Beggarticks	<i>Bidens</i> spp.					NCS	1–4 ft
Chaffhead	<i>Carphephorus</i> spp.					NCS	24–30 in
Partridge pea	<i>Chamaecrista fasciculata</i>					NCS	3 ft
Thistle	<i>Cirsium</i> spp.					NCS	2–3 ft
False rosemary	<i>Conradina</i> spp.					NCS	2–3 ft
Lanceleaf tickseed	<i>Coreopsis lanceolata</i>					NC	1–3 ft
Purple coneflower	<i>Echinacea purpurea</i>					NC	18 in
Rattlesnakemaster	<i>Eryngium</i> spp.					NCS	1–3 ft
Blanketflower	<i>Gaillardia pulchella</i>					NCS	15 in
Wild geranium	<i>Geranium carolinianum</i>					NCS	2–3 ft
Sneezeweed	<i>Helenium</i> spp.					NCS	1–3 ft
Sunflower	<i>Helianthus</i> spp.					NCS	2–6 ft
Dune sunflower	<i>Helianthus debilis</i>					NCS	10–15 in
Blazing star	<i>Liatis</i> spp.					NCS	24–30 in
Snow squarestem	<i>Melanthera nivea</i>					NCS	3–4 ft
Dotted horsemint	<i>Monarda punctata</i>					NCS	3–4 ft
Beardtongue	<i>Penstemon</i> spp.					NCS	18–24 in
Frogfruit	<i>Phyla nodiflora</i>					NCS	4 in
Black-eyed susan	<i>Rudbeckia</i> spp.					NCS	15–18 in
Rosinweed	<i>Silphium</i> spp.					NC	3–4 ft
Blue-eyed grass	<i>Sisyrinchium</i> spp.					NCS	6 in
Goldenrod	<i>Solidago</i> spp.					NCS	3–4 ft
Stokes' aster	<i>Stokesia laevis</i>					NC	18 in
Aster	<i>Symphotrichum</i> spp.					NCS	2–4 ft
Spiderwort	<i>Tradescantia ohiensis</i>					NC	15–24 in
Blue curls	<i>Trichostema dicotomum</i>					NCS	24–30 in
Frostweed	<i>Verbesina virginica</i>					NC	2–5 ft
Ironweed	<i>Vernonia</i> spp.					NCS	4–6 ft

Provide nest habitats

- Leave open, undisturbed soil for ground nesters



Provide nest habitats

- Let hollow stem plants remain
- Leave some brush piles
- Build and use bee homes





Spray wisely, minimize mowing

- Minimize pesticides, use natural products if possible
- Don't disturb nesting areas with mowing

Resources

- UF/IFAS Native Bees of Florida: [pdf\IN\IN128500.pdf \(ufl.edu\)](#)
- UF/IFAS Attracting Native Bees: [IN125500.pdf \(ufl.edu\)](#)
- Xerxes Society: [Pollinator Conservation Program | Xerxes Society](#)
- Pollinator Partnership: [About Pollinators | Pollinator.org](#)



QUESTIONS?
THANK YOU!

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