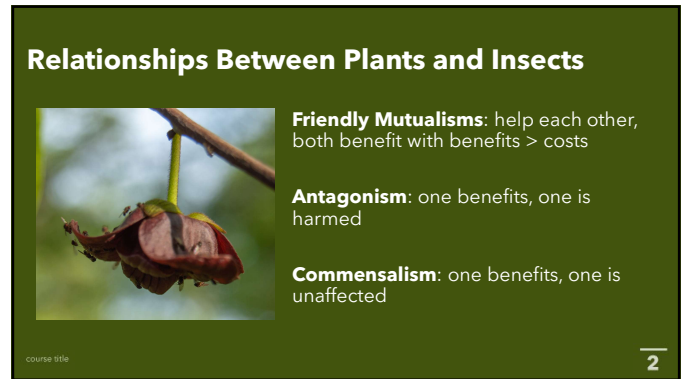
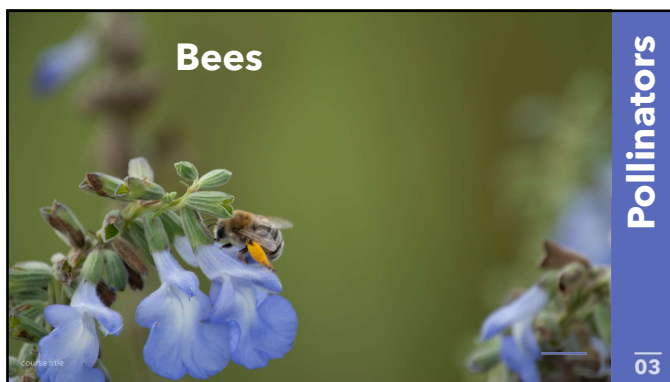




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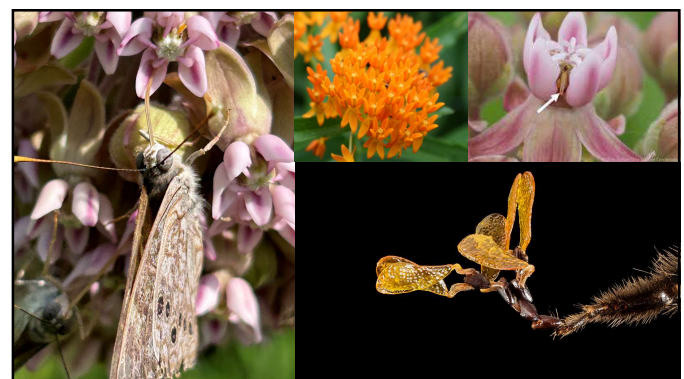
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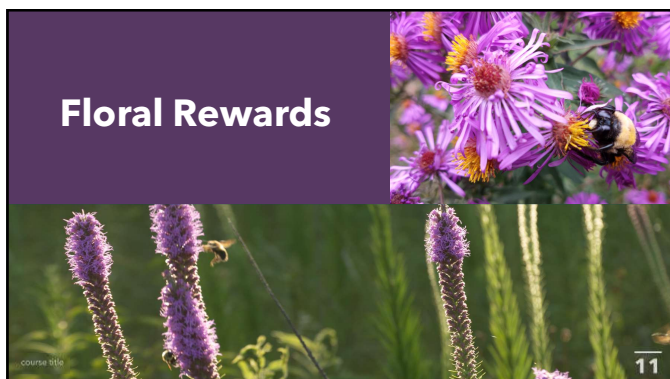
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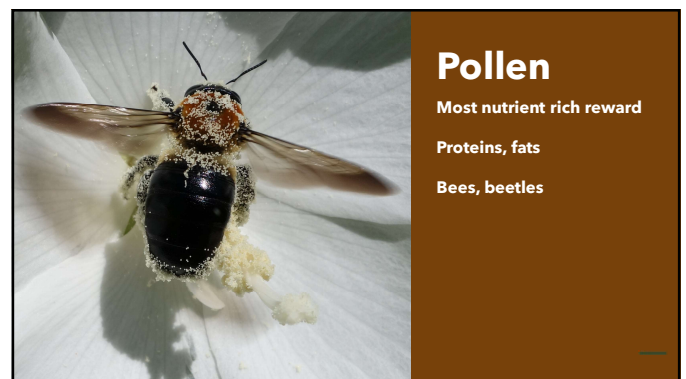
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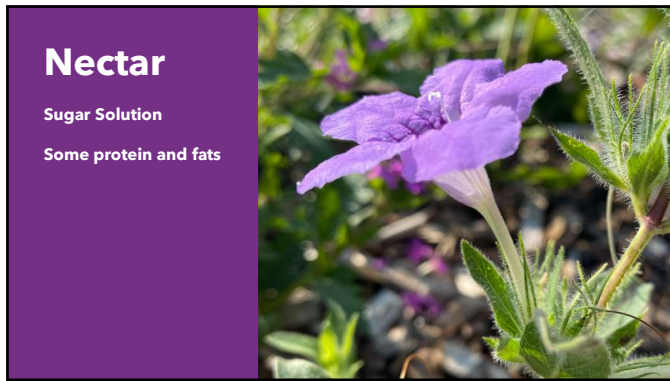


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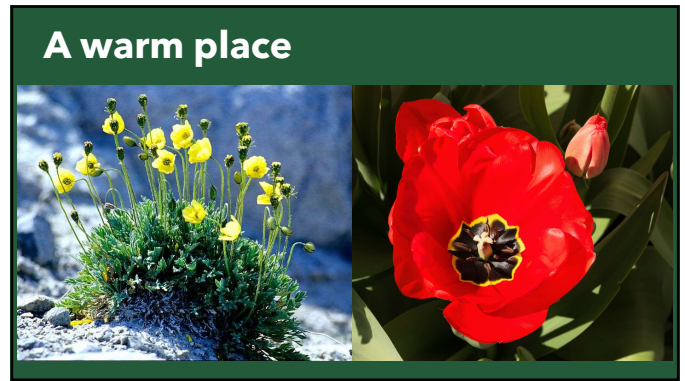


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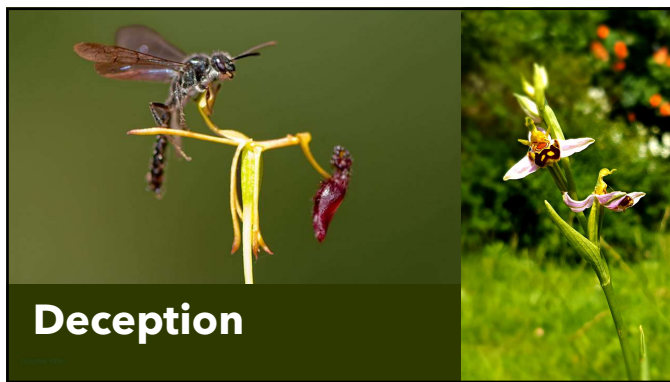




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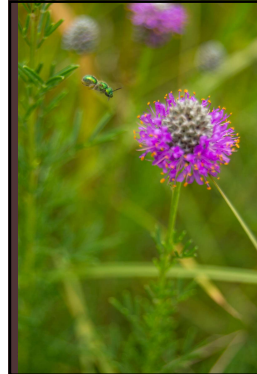
18



### Worldwide Decline of Insects

-  76% decrease in flying insect biomass between 1989-2016 in Germany
-  European butterfly abundance decreased 50% between 1990-2011
-  Globally, 40% of all pollinator species have declined
-  In Iowa 1/2 of all bumblebee species became locally extinct between 1940 – 1960

19



### Gardening for Pollinators

**DIVERSITY! DIVERSITY! DIVERSITY!**

**Native Plants**

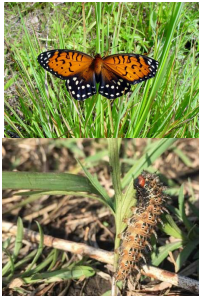
**Host Plants**

**Nesting Sites**

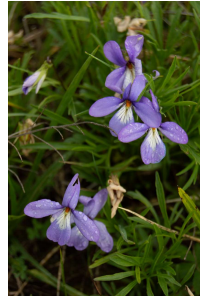
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Regal Fritillary



Bird's-Foot Violet



21



22



500 Native Bee  
Species in Ohio

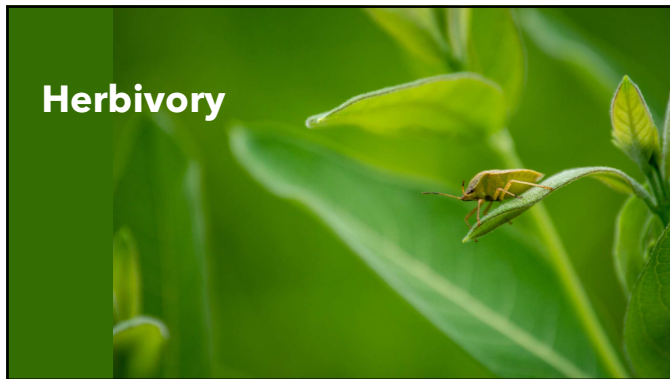
23



**Native Species vs. Nativars**

24





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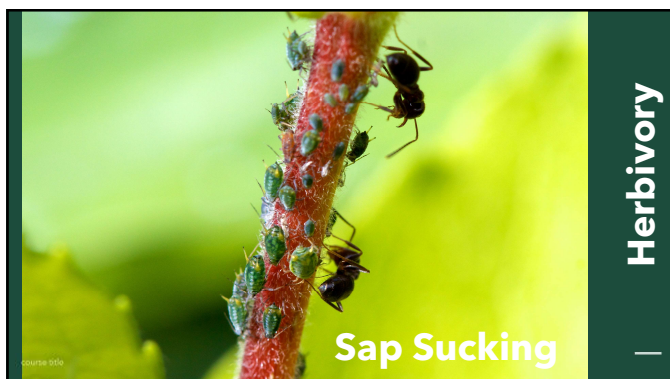
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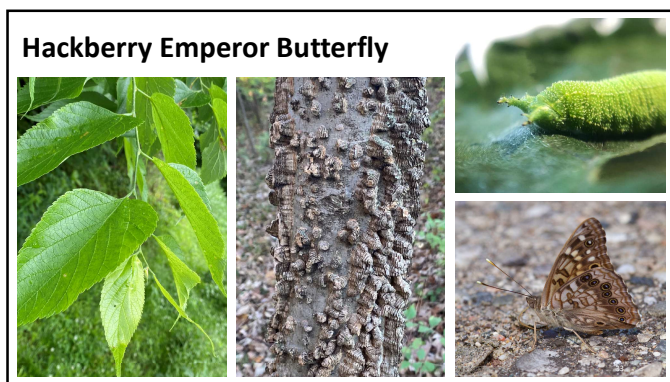
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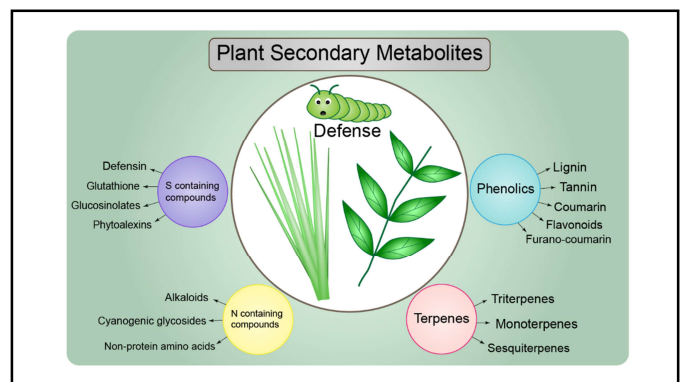
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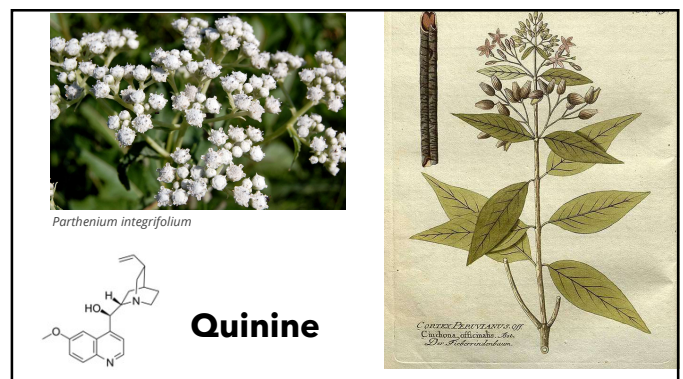
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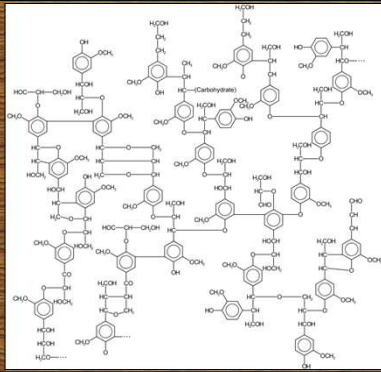


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## Lignin

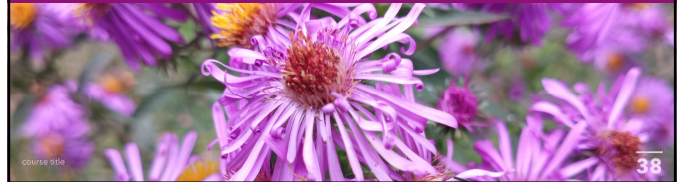


37

## contact info

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jennifermood@ku.edu



38

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39

39

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