

Pollination

Good for Plants and Humans,
But What do Bees Get Out of It?
Brent Weisman, Florida Master Beekeeper

One mouthful of every three

All bees:



Estimated
1/3 of food
is pollination
dependent



Make 6,000
tonnes of honey



Pollinate **70**
types of crop



Contribute
£400 million
to the economy

A colony:



Pollinates
4,000 m²
fruit trees



Makes avg
14kg
of honey



Contains
50,000
bees

We Make Our Bees Work Very Hard



Alfalfa
Apple
Almond
Artichoke
Asparagus
Blackberry
Blueberry
Broccoli
Brussels sprouts

Some crops pollinated by bees³

Cabbage
Cacao
Cantaloupe
Carrot
Cashew
Cauliflower
Celery
Cherry
Citrus
Dill
Eggplant/
Aubergine
Fennel
Garlic

Kale
Kola nut
Leek
Lychee
Macadamia
Mango
Mustard
Nutmeg
Onion
Passion fruit
Peach
Pear
Plum
Pumpkin

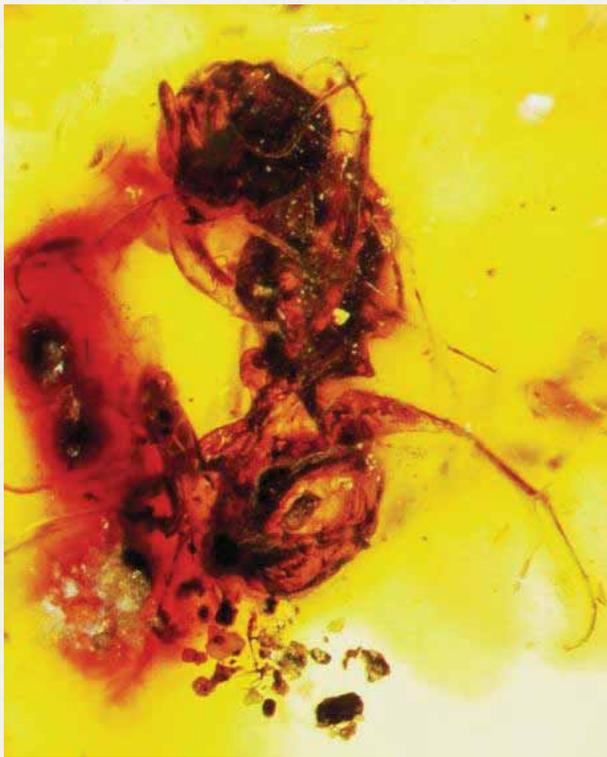
Raspberry
Sapote
Squash
Sunflower
Tangerine
Tea
Watermelon

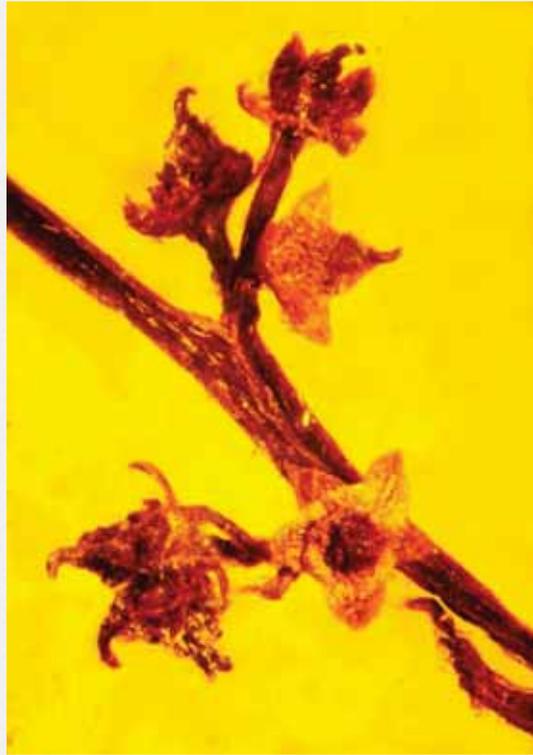


1.6 M colonies of bees!



100 MYA

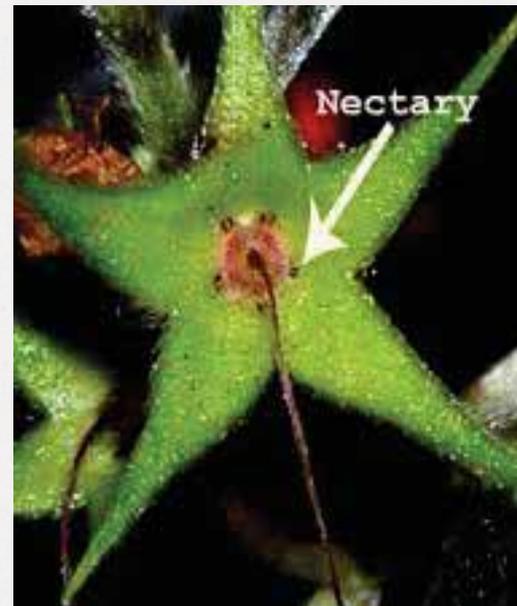




How Plants Strut Their Stuff

NECTARIES

- The **nectaries** are the parts of a flower that make **nectar**. Nectar is a sweet substance. Insects drink it to get energy! Bees also use nectar to make honey.
- The **nectaries** are usually right in the **centre of the flower**. This means the insects have to go deep into the flower to find the nectar. As they do so, their bodies pick up pollen from the anthers, and they carry it to the next flower they visit.



What We See



Bees are highly evolved to sense and locate flowers



Looking for Nectar, Dusted with Pollen









Amino Acids:

Alanine
Arginine
Aspartic Acid
Cystine
Glutamic Acid
Histidine
Hydroxyproline
Isoleucine
Leucine
Lysine
Methionine
Phenylalanine
Proline
Serine
Threonine
Tryptophan
Tyrosine
Valine

Enzymes:

Amylase
Catalase
Cozymase
Cytochrome Systems
Diastase
Disphorase
Lactic Dehydrogenase
Pectase
Pepsin
Phosphatase
Saccharase
Succinic Dehydrogenase
Trypsin
33 Hydrolases
24 Oxidoreductases
21 Transferases
11 Lyases
5 Isomerases





Thank you!

