



Honey Bee Update 2018
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www.ent.uga.edu/bees



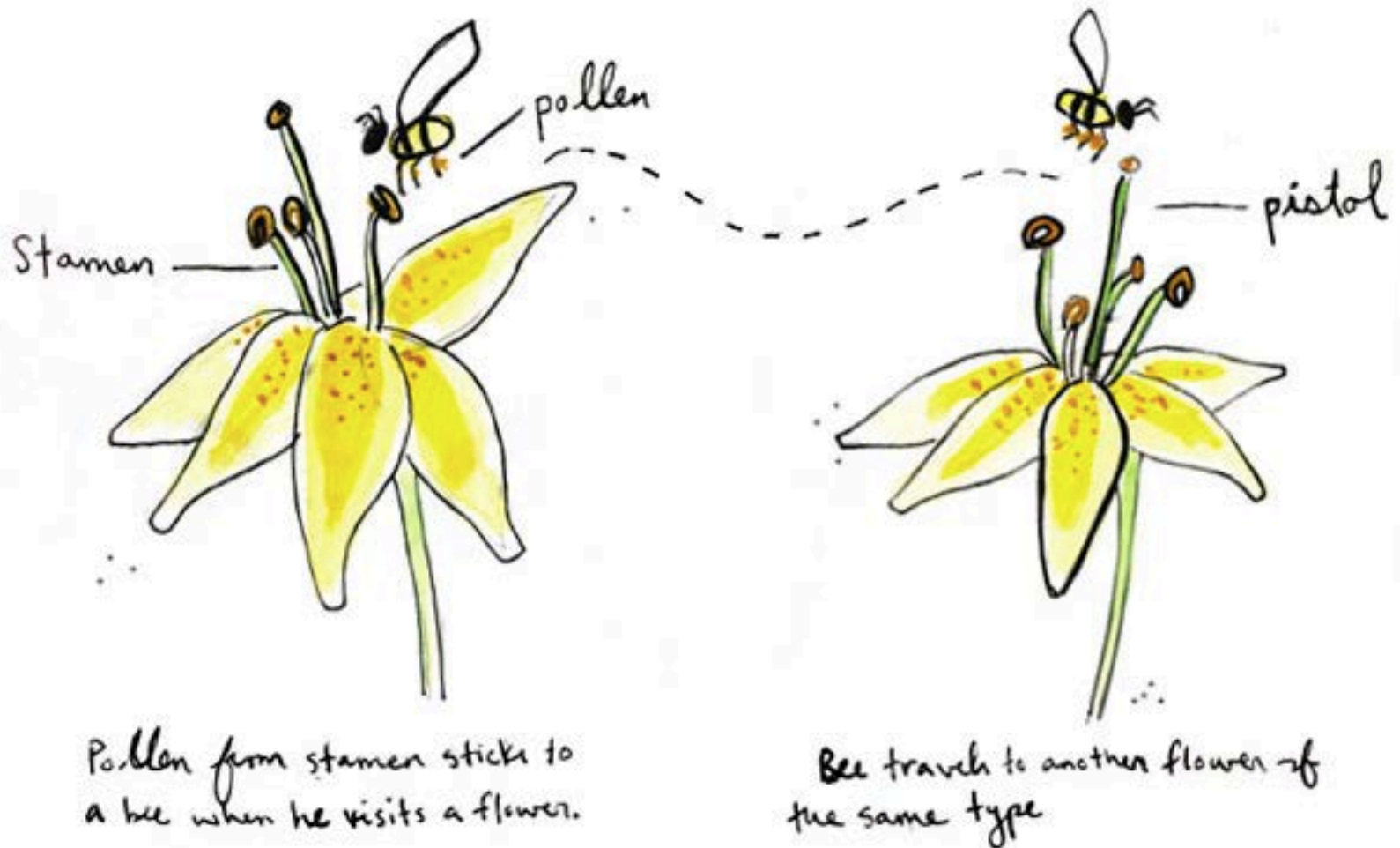


Nectar - Honey
Carbohydrate source









Pollination

Huge economic/environmental impact

Why are honey bees such great
pollinators?



Move then into locations
we choose

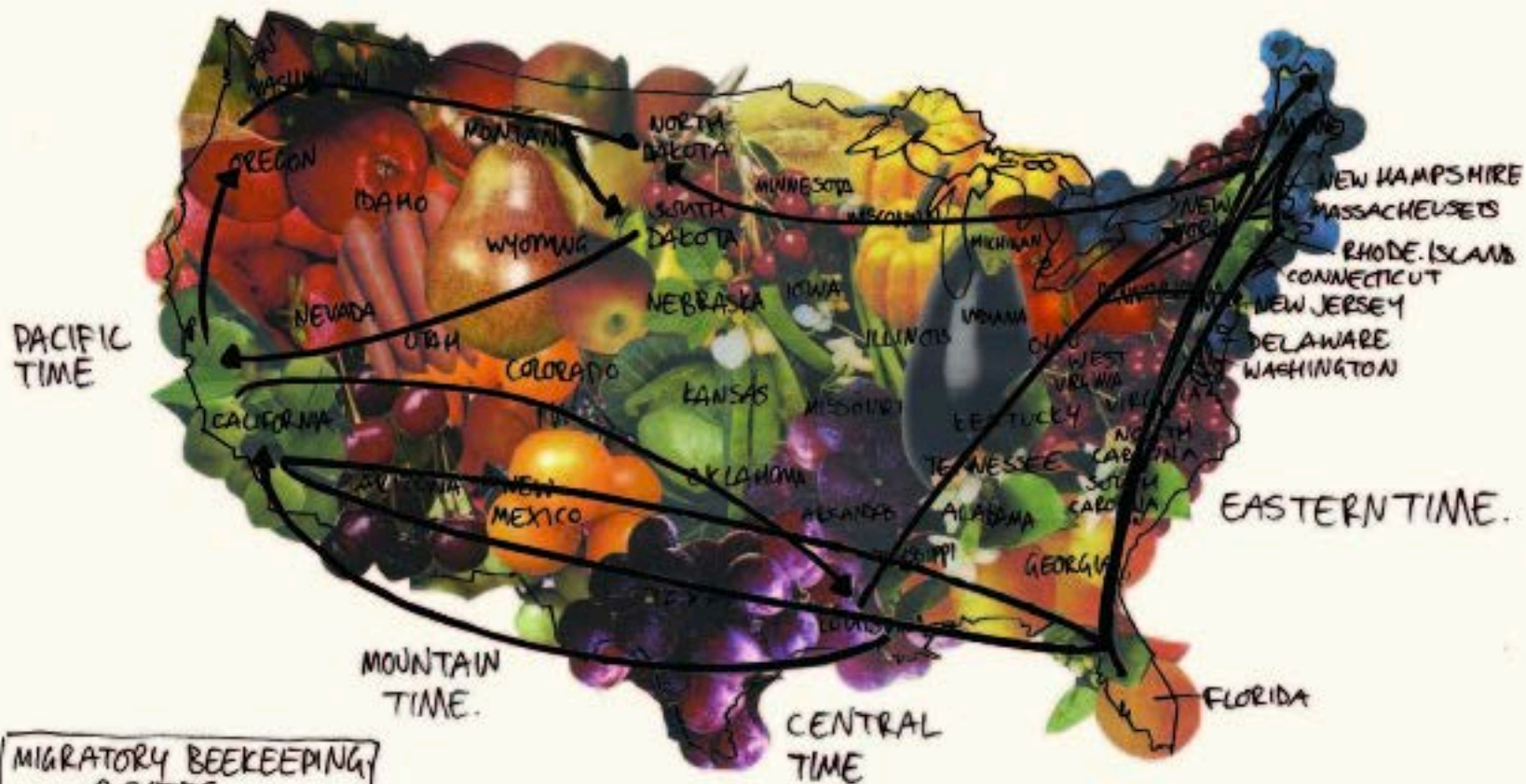












MIGRATORY BEEKEEPING ROUTES

LOUISIANA → CALIFORNIA → LOUISIANA → N. JERSEY → E. MAINE → S.E. MAINE.
 N. YORK
 N. H.
 MASS

FLORIDA → N. JERSEY → MASSACHUSETTS → FLORIDA.
 N. HAMPSHIRE
 MAINE

FLORIDA → CALIFORNIA → FLORIDA → MAINE → MASS. → FLORIDA





Reasons why bees are dying



Varroa destructor



Apis Mellifera



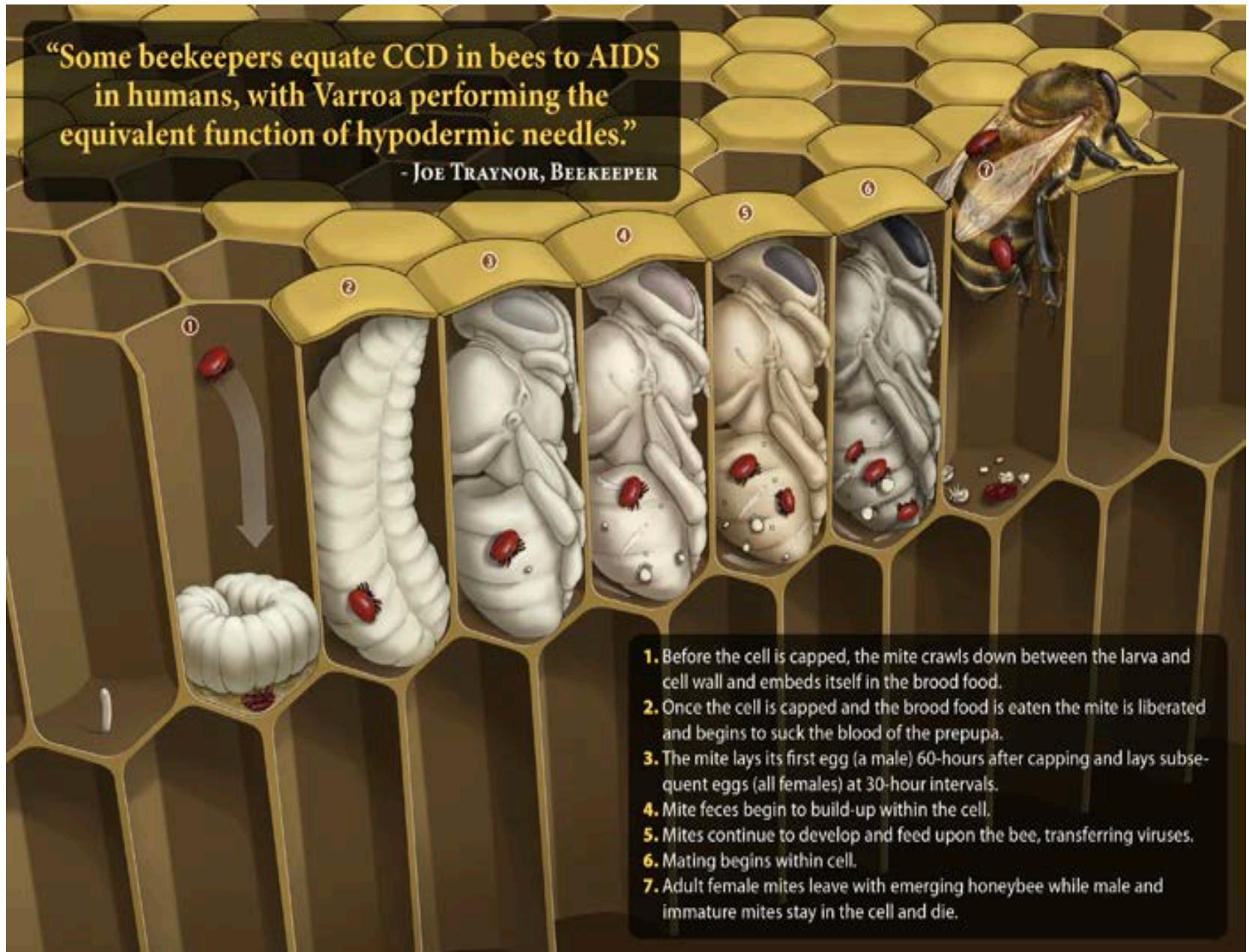
Apis Cerana





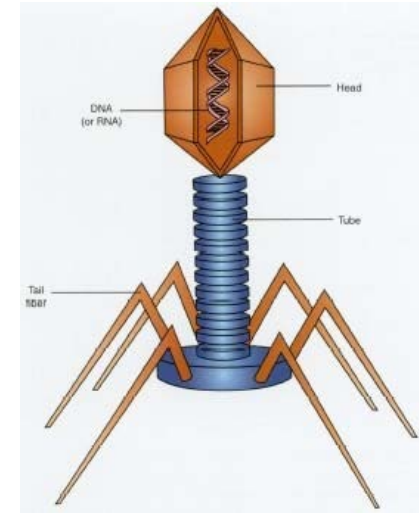
"Some beekeepers equate CCD in bees to AIDS in humans, with Varroa performing the equivalent function of hypodermic needles."

- JOE TRAYNOR, BEEKEEPER



Feeding on fat bodies





Viruses are old, mites are new!

Feeding on the bees is how these
viruses are transmitted.



Good Ole Days

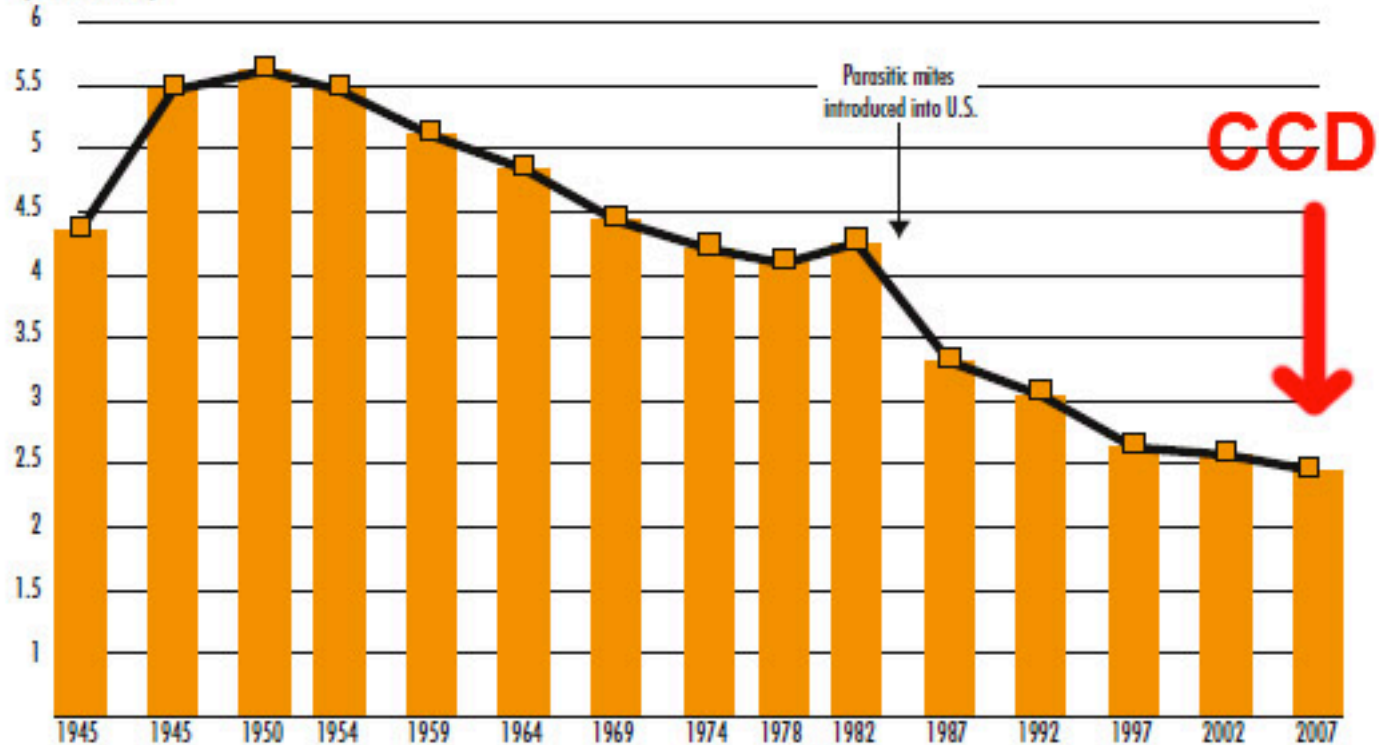






Figure 4: US honey-producing colonies

Number of honey producing bee colonies
(x 1 000 000)



Data source: U.S. Department of Agriculture's (USDA) National Agricultural Statistics Service (NASS) NB: Data collected for producers with 5 or more colonies. Honey producing colonies are the maximum number of colonies from which honey was taken during the year. It is possible to take honey from colonies which did not survive the entire year.





Report a Pesticide-Related Bee Kill

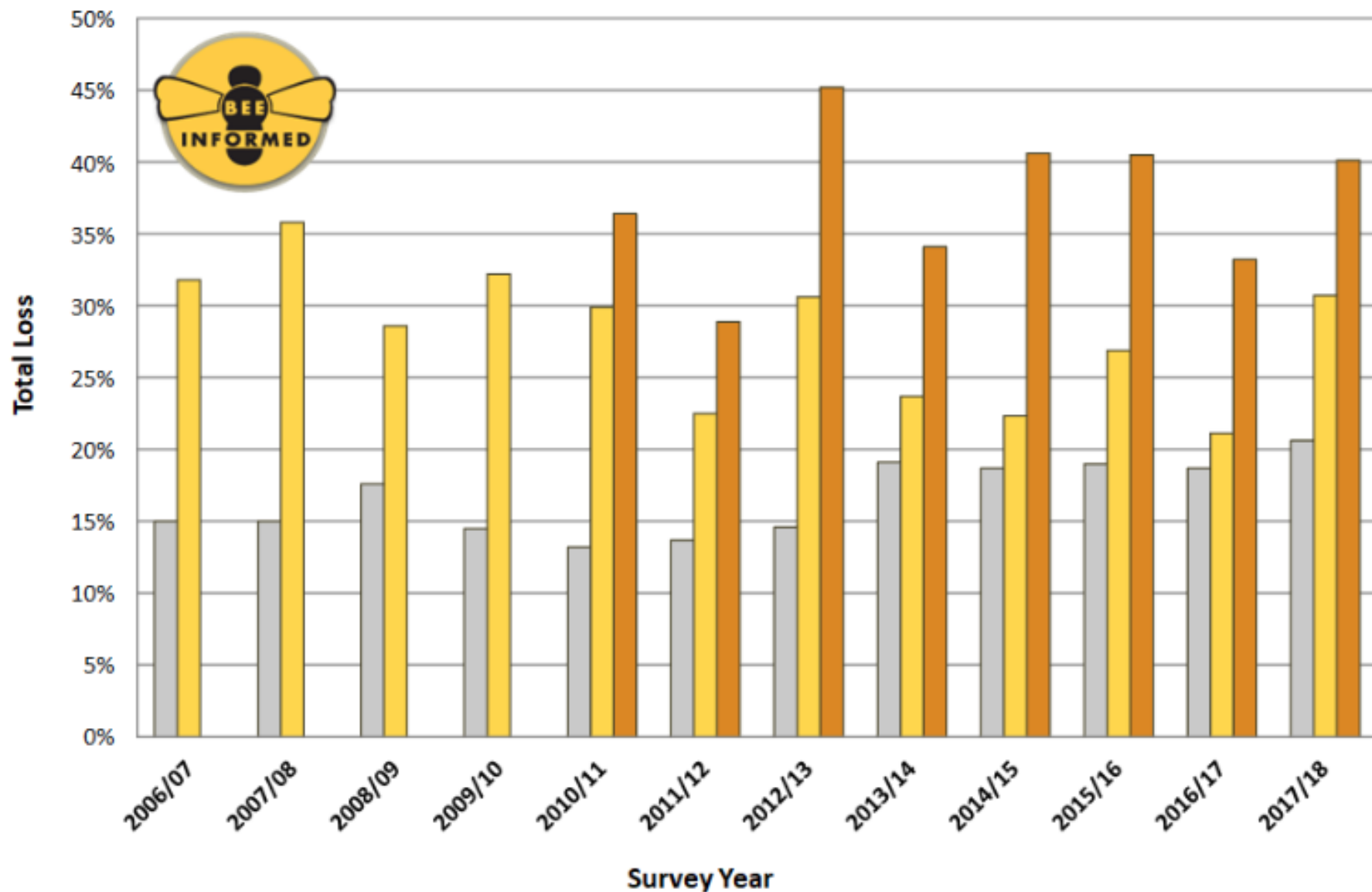


Total US managed honey bee colonies loss estimates

Acceptable Winter Loss

Total Winter Loss

Total Annual Loss





Pure Green Bee (*Agagochlora pura*)



Metallic Green Bee (*Augochloropsis metallica*)



Cuckoo Bee (*Pleurostoma* sp. *fulvipes* group)



Cuckoo Bee (*Pleurostoma* sp.)



Sweat Bee (*Lasioglossum* sp.)



Cuckoo Bee (*Sphecodes* sp.)



Sweat Bee (*Lasioglossum* sp.)



Mining Bee (*Andrena* sp.)



Holcetus Bee (*Holcetus poryi*)



Eastern Carpenter Bee (*Xylocopa virginica*)



Eastern Bumble Bee (*Bombus impatiens*)



Cornell's Bee (*Andrena cornelli*)



Longhorned Bee (*Eucera* sp.)



Small Carpenter Bee (*Ceratina* sp.)



Miner Bee (*Colletes* sp.)



Hairy Black Bumble Bee (*Bombus vagans*)



Mason Bee (*Heriades* sp., *Neohyattini*)

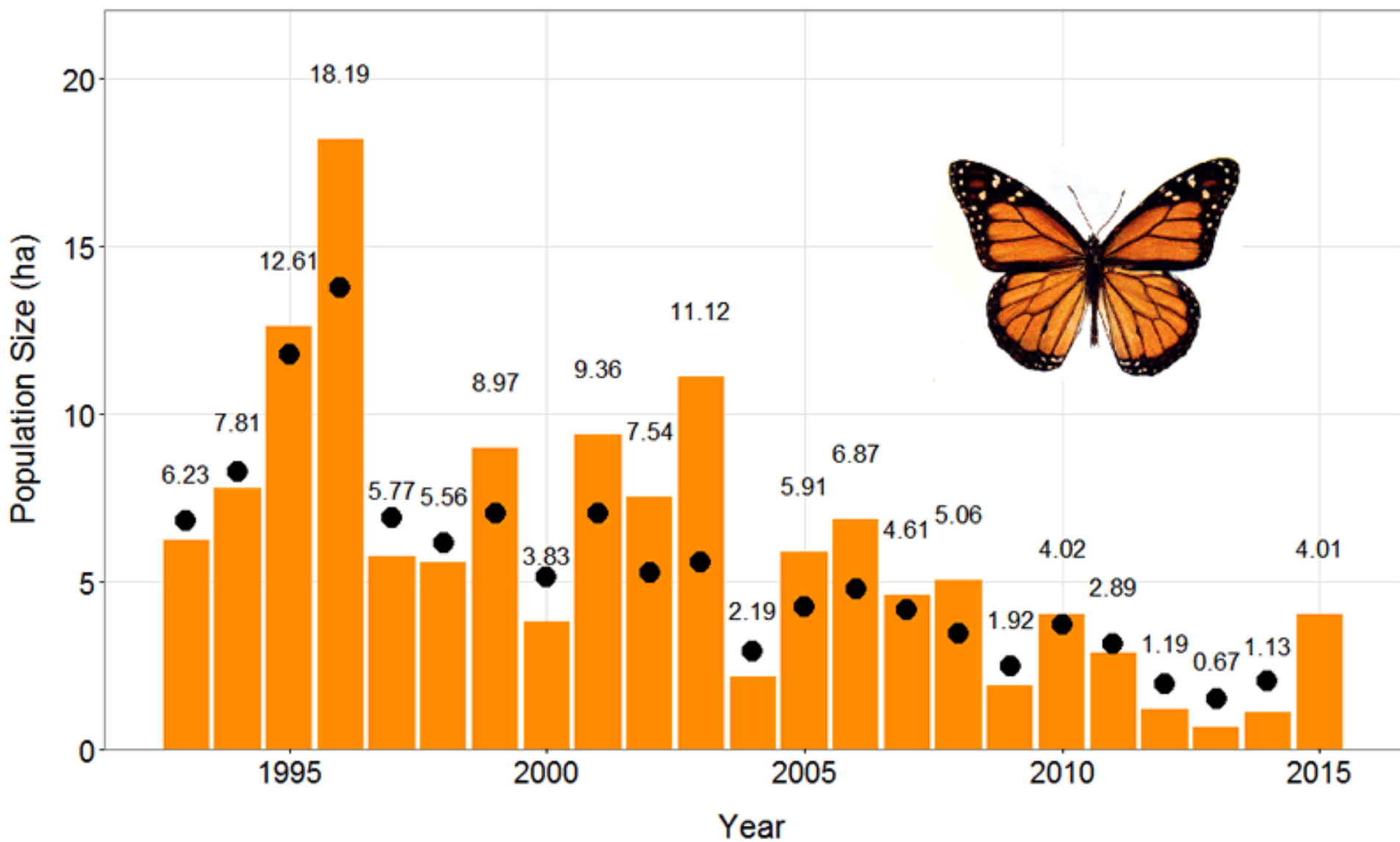


Yellow-faced Bee (*Tylocopa* sp.)



Red-capped Bee (*Megachile* sp.)

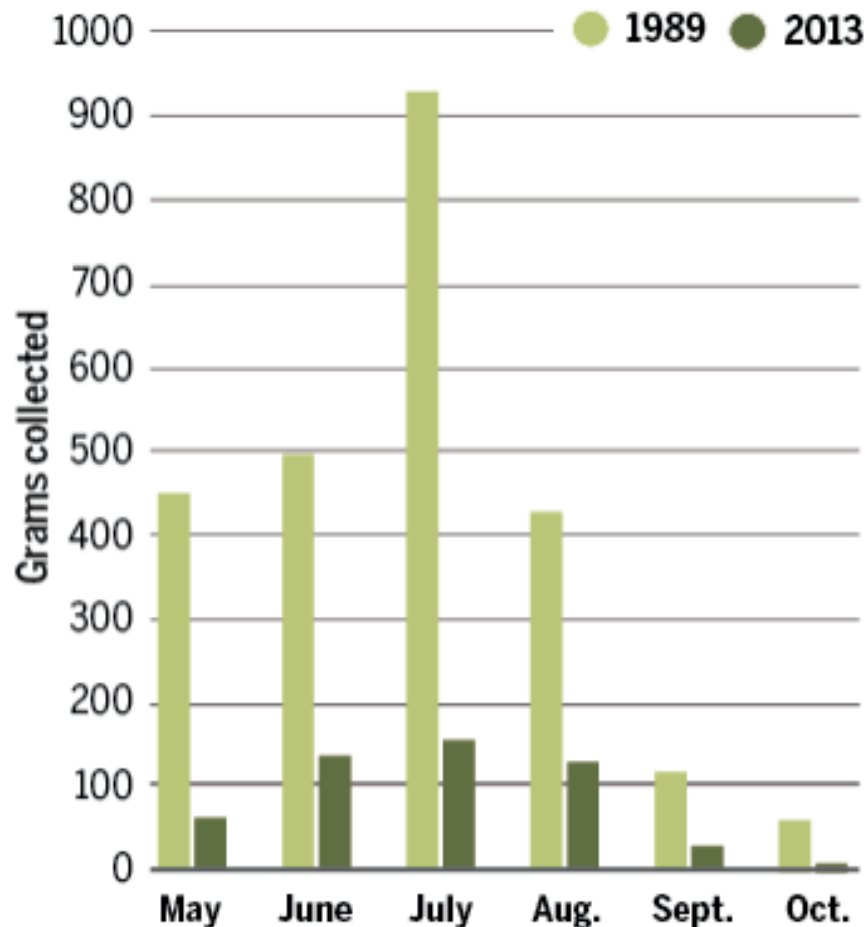






Weighty disappearances

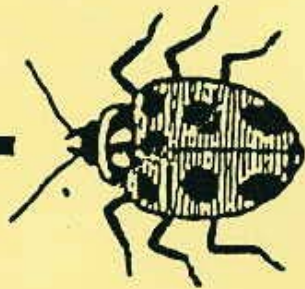
The mass of insects collected by monitoring traps in the Orbroicher Bruch nature reserve in northwest Germany dropped by 78% in 24 years.



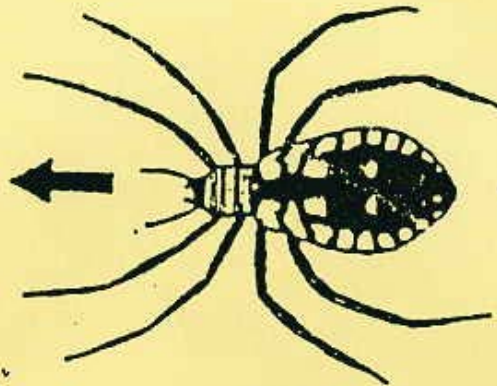
(GRAPHIC) G. GRULLÓN/SCIENCE; (DATA) M. SORG ET AL.,
MITTEILUNGEN AUS DEM ENTOMOLOGISCHEN VEREIN KREFELD 1, 1–
5 (2013) © 2013 ENTOMOLOGISCHER VEREIN KREFELD



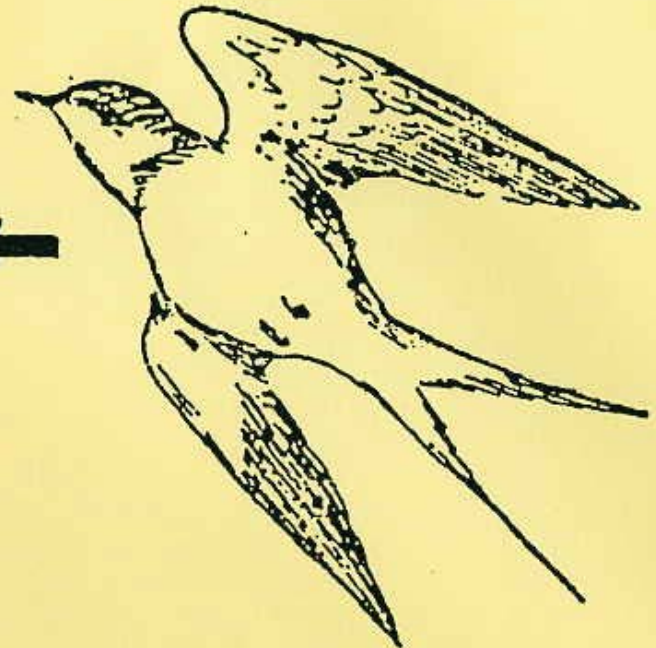
APHID



BEETLE



SPIDER











Why the decline?

- Loss of habitat due to agriculture and human development
 - Loss of food to grazing and crop lands not suppling a diverse wildflower mixture which insects prefer
 - Loss of countryside to concrete and buildings doesn't provide for shelter and nesting sites
- Pesticide Use
 - Herbicides, fungicides and insecticides

What can we do?

Plant or protect trees for wildlife

- Red Maple
- Redbud
- Tupelo
- Sourwood
- Black Locust
- Basswood
- Tulip Poplar
- American Holly



Shrubs

- Native Blueberry
- Titi
- Gallberry
- Blackberry
- Laurel
- Privet
- Sumac
- Butterfly Bush
- Buttonbush



Annuals/Perennials

- Sunflowers
- Coneflowers
- Salvia
- Mountain Mint
- Mexican Sage
- Asters
- Zinnias
- Goldenrod
- Aster





Any Questions?





Buy local honey



Become a beekeeper



All bees:



Estimated
**1/3 of
food
is pollination
dependant**



**Make 6,000
tonnes of honey**



Pollinate **70**
types of crop

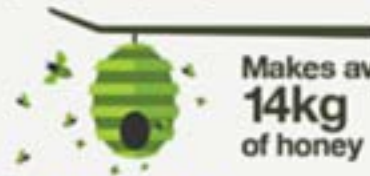


Contribute
£400 million
to the economy

A colony:



Pollinates
4,000 m²
fruit trees



Makes avg
14kg
of honey



Contains
50,000
bees

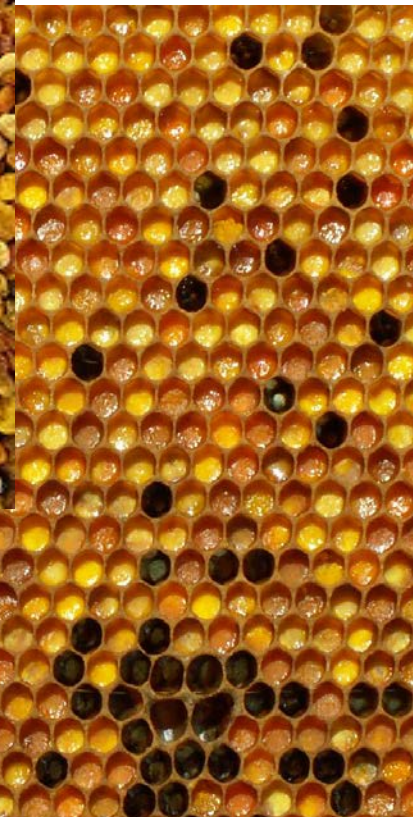
**If we die, we're taking
you with us.**



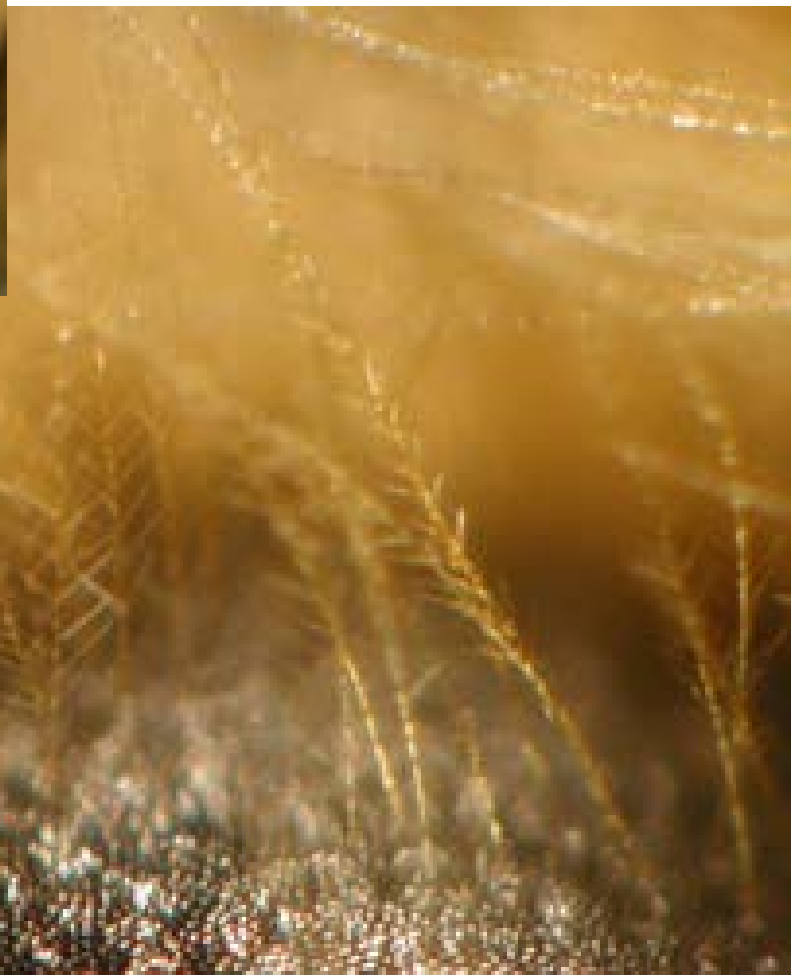
lawforbeauty.com

Pollen

Protein Source























BeverlyBees.com



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