

# Breadfruit Mealybugs & Elephant's Ear



# What is breadfruit mealybugs?

- \* Mealybugs are insects in the family Pseudococcidae, unarmored scale insects found in moist, warm climates. Many species are considered pests as they feed on plant juices of greenhouse plants, house plants and subtropical trees and also act as a vector for several plant diseases.



# Where?

- \* On breadfruit, the mealybugs are found along the midribs and larger veins on the undersides of the leaves and also on the fruit. They suck the sap from the leaves, and heavy infestations cause the leaves to dry up and die.



# Impact

- \* Yield is reduced by as much as 50% due to the loss of leaves, and even mature trees may be killed. Additionally, the mealybugs make honeydew and when this falls onto the leaves, sooty mould fungi grow on it, turning the leaves black and blocking.



# Relationship between Mealybugs & Elephant's Ear

- Mealybugs carries out parasitic nutrition on Elephant's Ear.
- (+): Mealybugs obtain nutrients by feeding on the plant sap of Elephant's Ear at the leaf veins.
- (-): Elephant's Ear loses nutrients through loss of plant sap.



Bees and Hairy Beggar's-tick

# \* Appearance

- \* most of which are bristly and barbed, with two sharp pappi at the end
- \* With bright yellow flowers tickseeds like the Beggars Tick are known for numerous seeds with hooked barbs that attach onto animal fur or clothing, allowing the seeds to be dispersed widely.



# Distribution

- \* Bidens(beggar-ticks) is distributed throughout the tropical and warm temperate regions of the world.[4] Most species occur in the Americas, Africa, and Polynesia, and there are some in Europe and Asia



# Thrips in Beggar's-tick



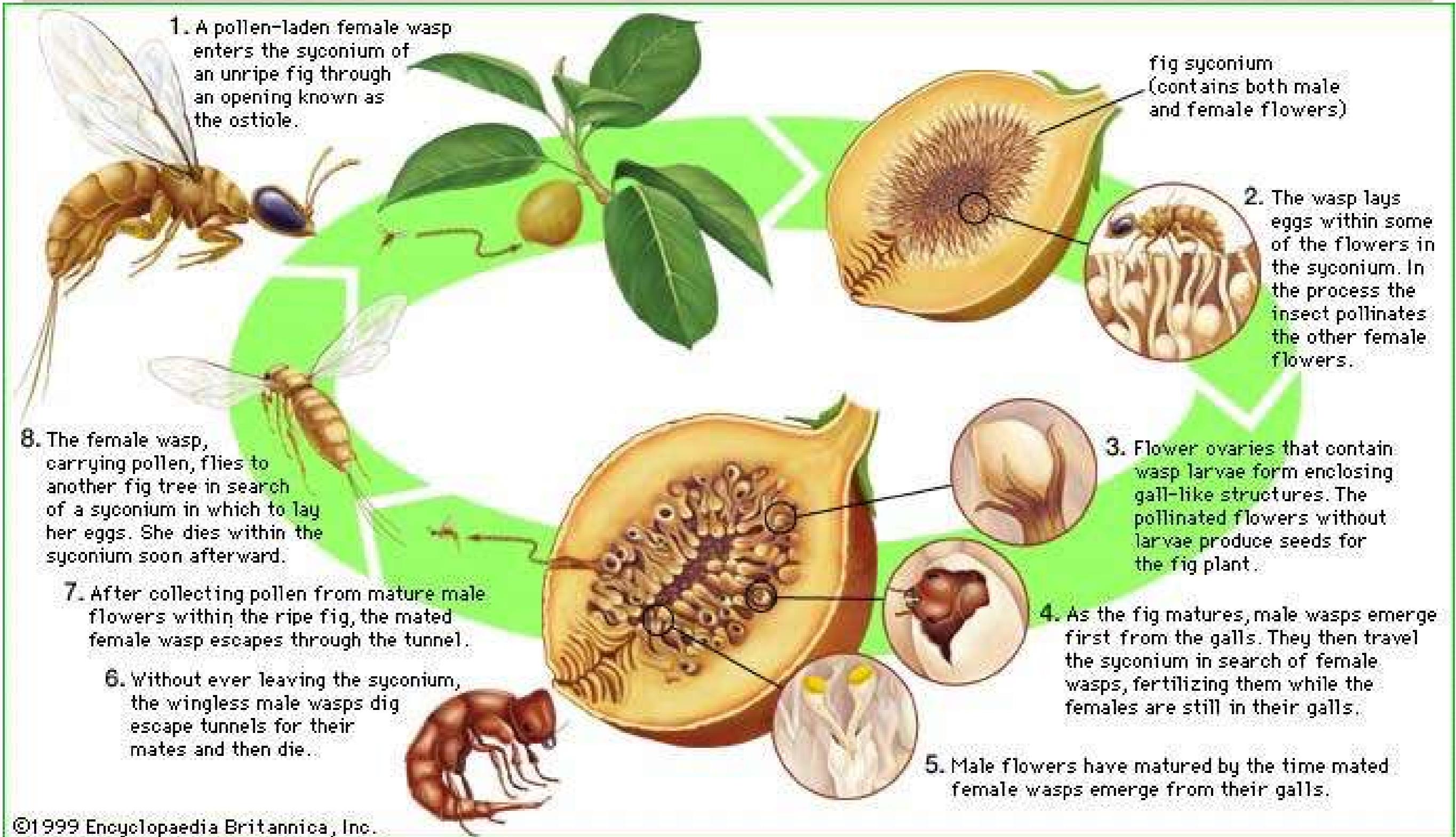
# Relationship

1. Thrips and Beggar-ticks
2. Thrips live in Beggar-ticks
3. Feed pollen grains in Beggar-ticks
4. Thrips help pollination of Beggar-ticks



Fig wasps and Fig

# How fig is formed?



The end