

Impacts of Temperature on a Tritrophic Food Web

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Main Questions

- How does temperature affect species interactions?
- How does an ant-hemipteran mutualism affect the population dynamics of competing aphid species?
- Can we predict the impacts of temperature on these complex interactions at a community level?



Specialist Aphid Predator
Aphidoletes aphidimyza



Mutualist/Predatory Ant
3 species



Native Aphid
Aphis asclepiadis



Invasive Aphid
Aphis nerii

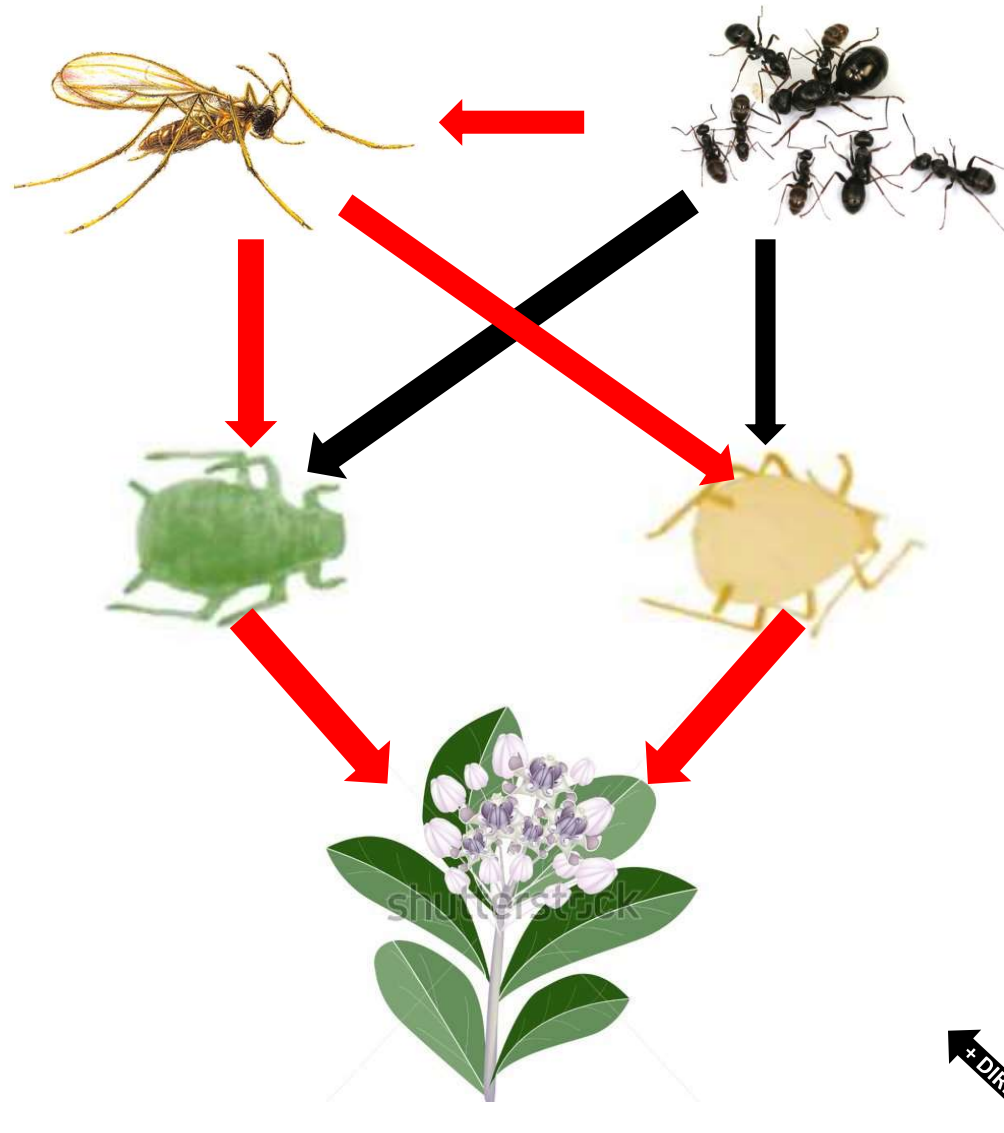


Ephemeral Host Plant
Asclepias syriaca

Predation
negatively
affects aphid
populations

Aphids
negatively
affect plant
productivity,
increase
mortality

Ant presence
positively
affects aphid
populations,
negatively
impacts
predator
populations



+ DIRECT
- DIRECT

