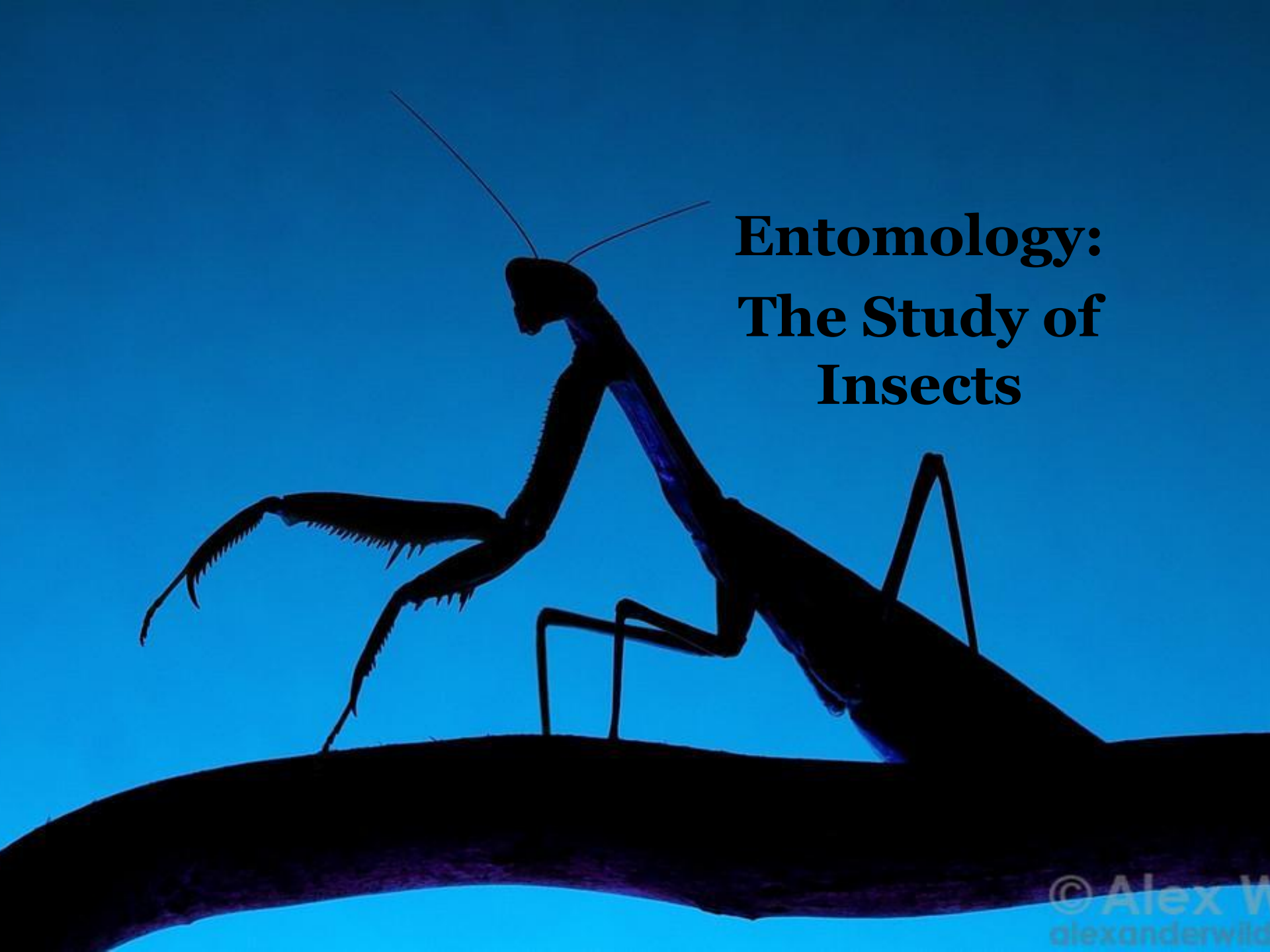

Entomology:
The Study of
Insects

Why Care About Insects?

- 80 % of the animals on Earth are insects
- 1 million known species, 10 million estimated total
- Found almost everywhere
- Survive in many different ways

Harmful, Beneficial, or Neither?

Integrated Pest Management

Host Plant Resistance

Cultural Control

Biological Control

Chemical Control

Economic Threshold

- The level of pest infestation needed to do enough damage to a crop that it will make economic sense to treat for the insect

- If it costs you $12 per acre to spray an insecticide, is it worth it to kill a pest that would have eaten $10 per acre of corn?

Nebraska Corn Pests

- Western corn rootworm



- Western bean cutworm

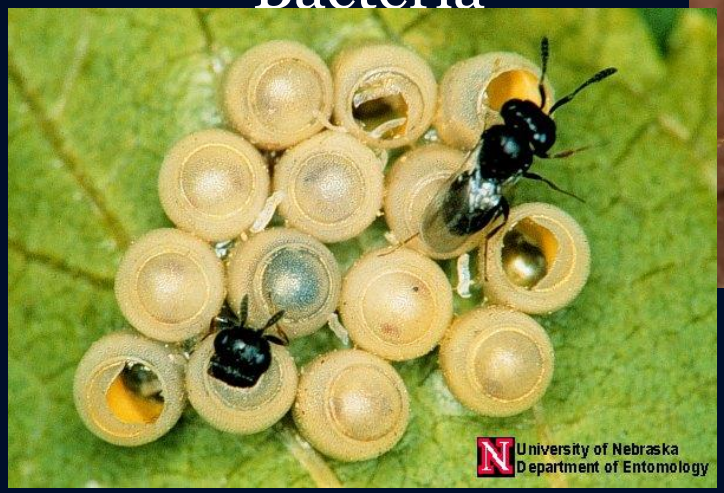


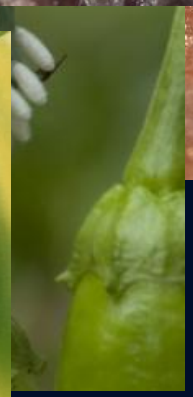

Biological Control

- Using other living organisms to control pests
- These organisms that attack pests are called natural enemies

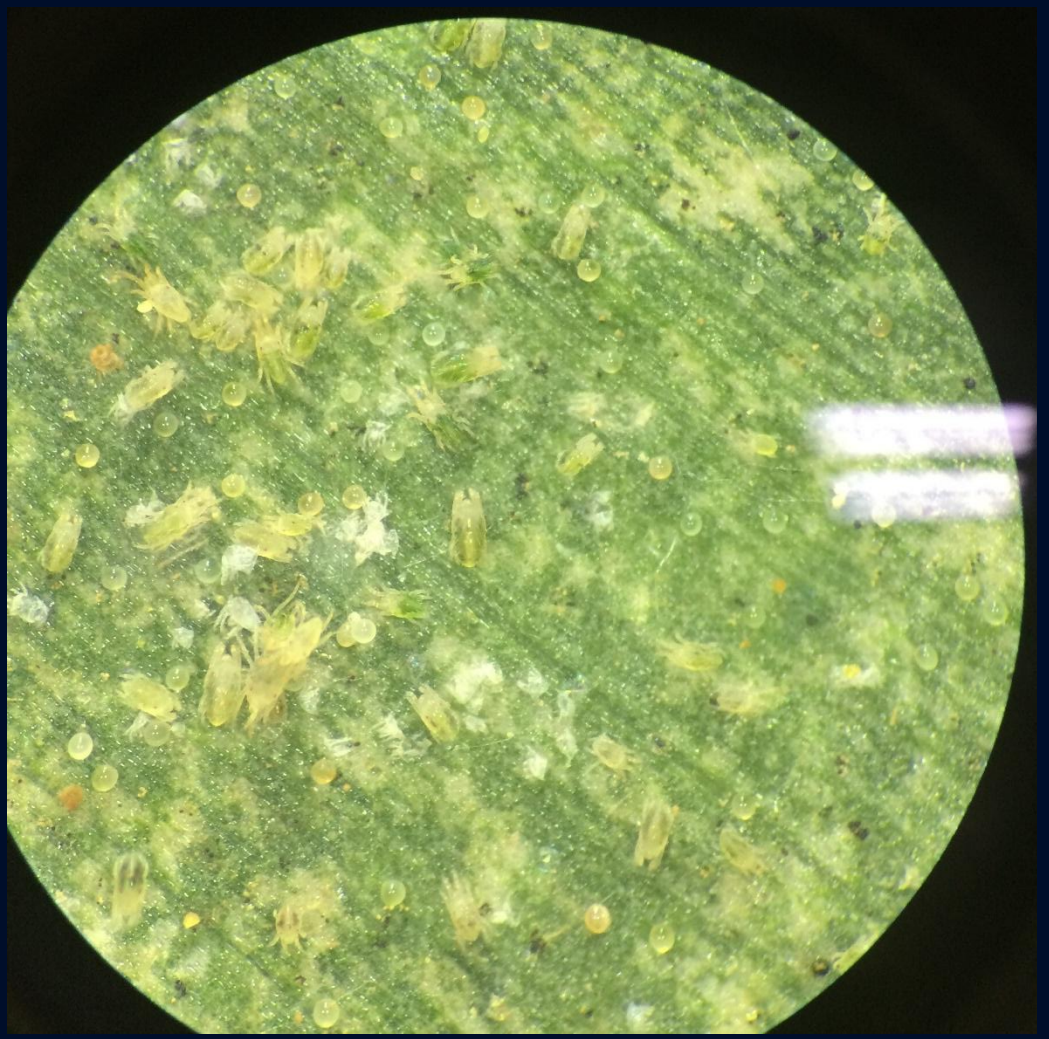
Types of Natural Enemies

- Predators
- Parasitoids
- Pathogens
  - Fungi
  - Nematodes
  - Bacteria





Secondary Pests: Spider Mites



Instructions For Scouting Activity

- You will be crop consultants hired by a corn farmer in Nebraska
- Get into four groups with data sheets
- Check each plant one by one for presence of pests or other insects
- Make a decision based on the 40% economic threshold
- Share your results and other insights with the rest of the group