



Insect program outline

Theme: Only by recognizing the importance and fascinating natural history of insects can we begin to understand the connectedness of the natural world.

Introduction: What would you do if next spring when you came to Chautauqua for a hike, there were no wildflowers in the meadow? What if, after your hike, you went to Wild Oats to pick something up for lunch, and there was no food on the shelves? Some of the things we enjoy in life exist due to the presence of insects; many of the things we depend on would dramatically change in the absence of insects.

Body:

1. What makes an insect an insect?
2. How do they live?
3. Role in the ecosystem
4. Why are they so successful?
5. Why are they so important?

Conclusion:

OSMP is alive and vibrant because of all the insects that live here; do your part to help them out.

Outline Details

Introduction:

“What does all this stuff got to do with insects?”

Props laid out on the ground: bat puppet, picture of a dead tree lying on the ground, eagle egg, bag of M&Ms or plastic flower

Bats - eat insects. Insects are an important part of the food chain

Dead tree – insects as decomposer

Eagle eggs – human short sightedness almost killed the eagle when we were trying to get rid of those nasty pesky insects – DDT (sprayed in the 1950’s and 60’s)

Chocolate – insects as pollinators of delicious foods, or

Flower – pollinator of beautiful (and many edible) plants

1. What makes an insect an insect?

Goal is to reveal the insect body plan through activities and questions:

Activity possibilities:

- Read Mystery Creatures (found in “Ranger Rick’s Nature Scope, Incredible Insects” pages 8 and 9). Participants draw the insect image created in their minds from the story
- Use the insect body parts box of props to prompt a discussion about insects’ body parts, including variations in mouth form and function

- Build a bug (a “Human Sculpture” activity.)

Transition: Now that we know what an insect is, let’s start thinking about how they make a living.

2. How do they live?

What do insects do? Goal is to explore the unique lifestyles of insects.

- Development – Metamorphosis
Activity, Finger Game
- Reproduction – Pheromones
Activity, Scent Game
- Feeding - Mouth parts
Activity, Insect body parts box props

Transition: Insects do a lot of interesting things in terms of natural history. At our next stop we are going to explore what they do for the rest of the natural world.

3. Role in ecosystem:

- Decomposers
Activity, Mt lion / deer / grass (predator/prey and decomposer game)
- Forest health, ponderosa pine beetle plays critical role in maintaining a healthy, thin forest
Activity, Carrying Capacity
- Key members in the web of life
Activity, Food Chain, hold up a picture of a black bear, red fox, etc. (anything that eats insects or eats something that eats insects), ask, “Do you enjoy seeing this animal? Do you think they’re an integral part of life here in the wild? Do you think they depend on insects for their survival?” YES – show scat with insect parts in it.

Transition: Insects do so many weird things, why have they been able to succeed better than any other animal group?

4. Why are they so successful?

Number of insects vs. other organisms on earth:

Estimated total between 1.8 to 7 million insect species.

Species identified to date: approximately 751,000 insect species, only about 9,000 bird species, and about 4,000 mammal species.

Reasons for insect success:

- Small size
- Exoskeleton
- High and rapid rate of reproduction
- Mobility
- Complete metamorphosis
Activity possibility, Finger Game
- Specialization to wide variety of habitats

Transition: Move from one stop to next as your favorite/a specified insect

5. Why are insects so important?

Benefits to humans:

- Decompose nutrients to produce soil, so plants can grow and we can have oxygen.
- Pollinate food products. “Do you like to eat M&M’s, apple pie, carrot cake, grape juice, etc? Then say “Thanks” to an insect for pollinating those plants.”

Activity: Pollinating Bee puppet, or

Activity: Honey tasting and explanation of production process (producing 2 lbs of honey requires 10 million visits to a flower, this equals 130,000 nectar loads)

- Insect eat each other, helping keep some populations in check.
- Insects are beautiful.

Conclusion:

What can a human do to help an insect?

Look only or catch carefully and release in the same place. Don’t squash.

Don’t pick flowers or remove habitat from OSMP.

Support important and rare habitats in your back yard and here in OSMP.