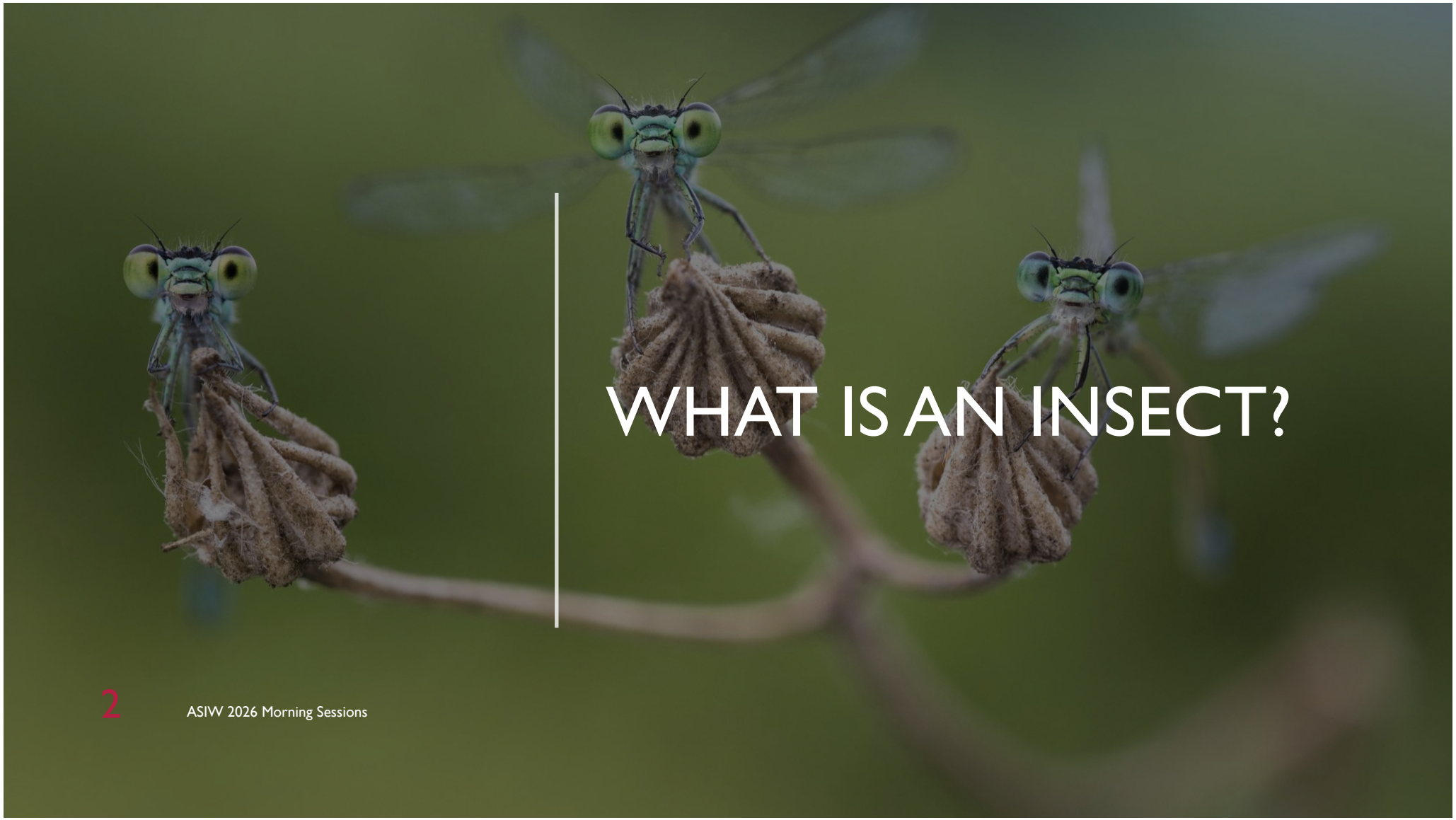
INSECTS

MARK DUBOIS



WHAT IS AN INSECT?

What is the most dangerous animal?

To humans?

Insect? **Yes or No?**

No

Lone star tick
8 legs
Prosoma / opisthosoma

Insect? **Yes or No?**

No

Immature chigger
They also have 6 legs.
But adult chiggers have 8 legs.

Insect? **Yes or No?**

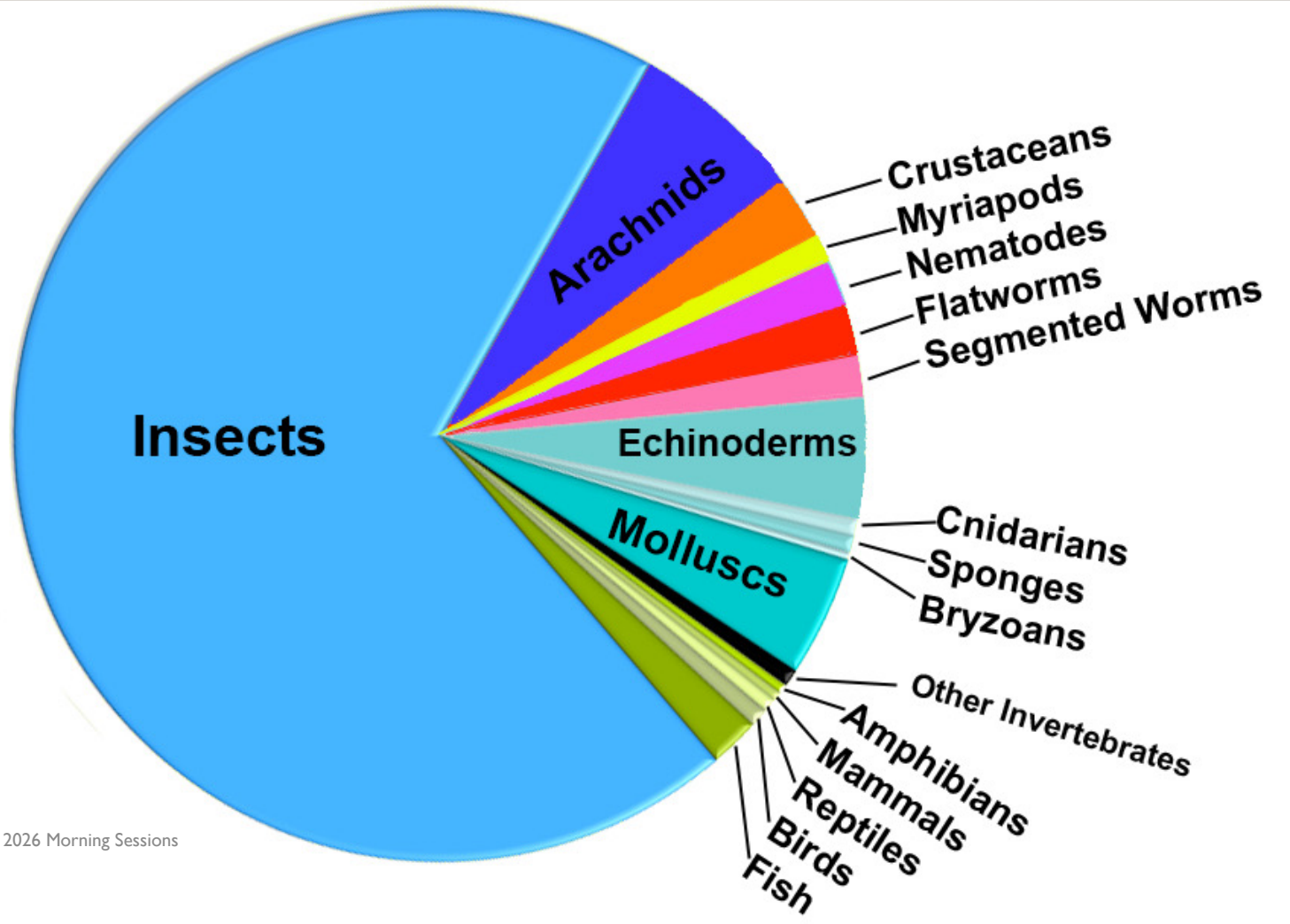
No

Harvestmen or daddy long legs
Order Opiliones

Insect? **Yes or No?**

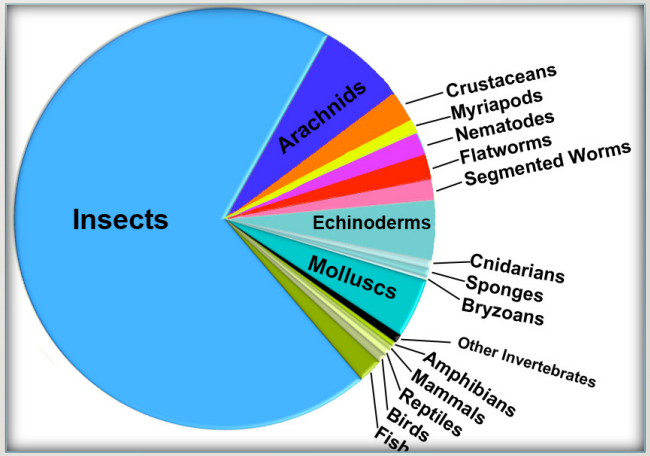
Yes

Silverfish
6 legs, 3 main body parts, antennae, hard exoskeleton, spiracles and trachea.



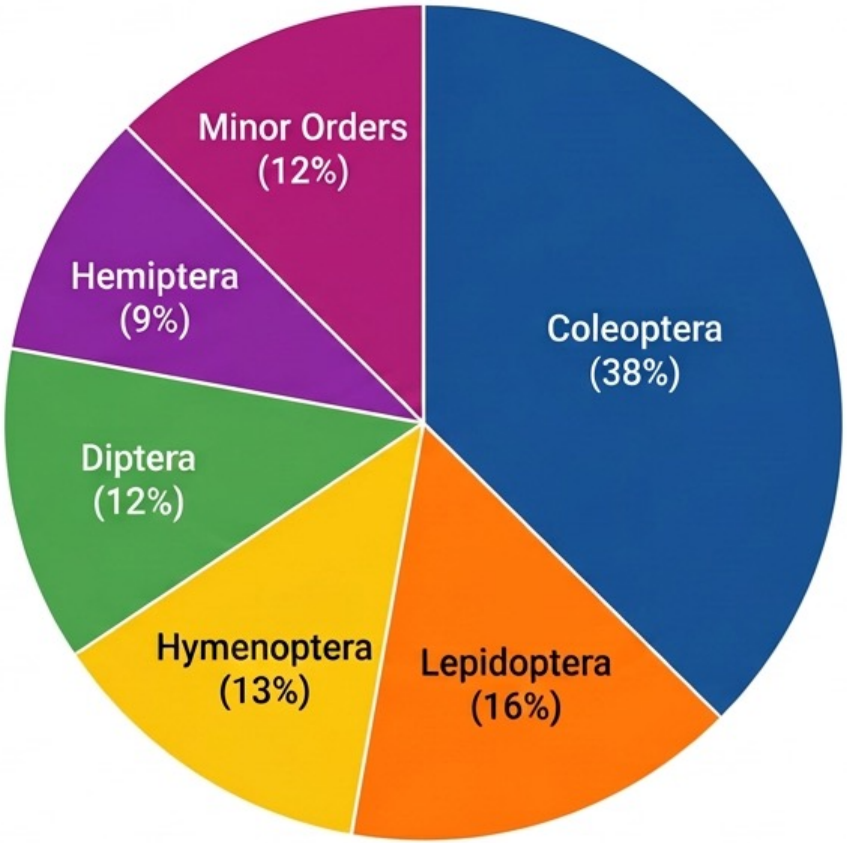
https://publish.illinois.edu/inhseducation/biodiversity/what-is-an-animal/animal-diversity/

- Majority of animal species are insects.
- 1 out of every 4 animals you encounter is likely a beetle.
- Biomass of insects exceeds all other animals.
- Insects are found on every continent (including Antarctica).



Why are insects so successful?

INSECT SPECIES DIVERSITY: MAJOR ORDERS



IMPORTANCE OF INSECTS (ROLES)

Pollination – roughly 80% of wild flowering plants and 75% of food crops

Decomposers – nutrient recycling (consider Australia and cattle)

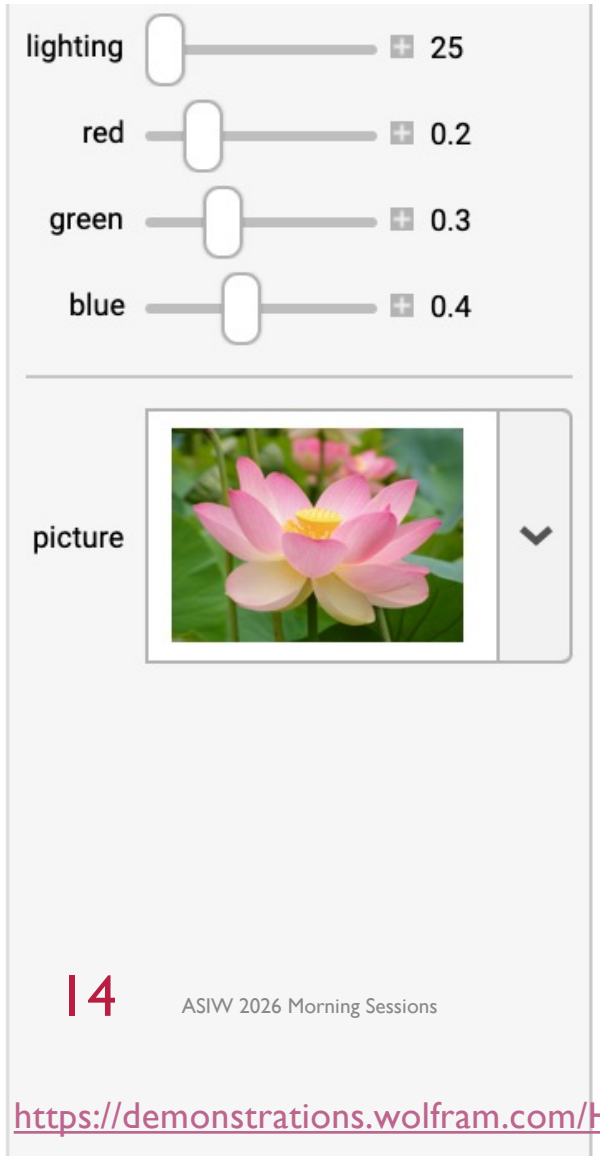
Food source for many animals (birds are one example)

Pest control (many insects are parasitoids and predators)

Soil health (aeration, add nutrients and much more)

Great ecosystem health indicators

IT IS ESTIMATED ONE IN 3 BITES OF YOUR FOOD IS BECAUSE OF POLLINATORS!



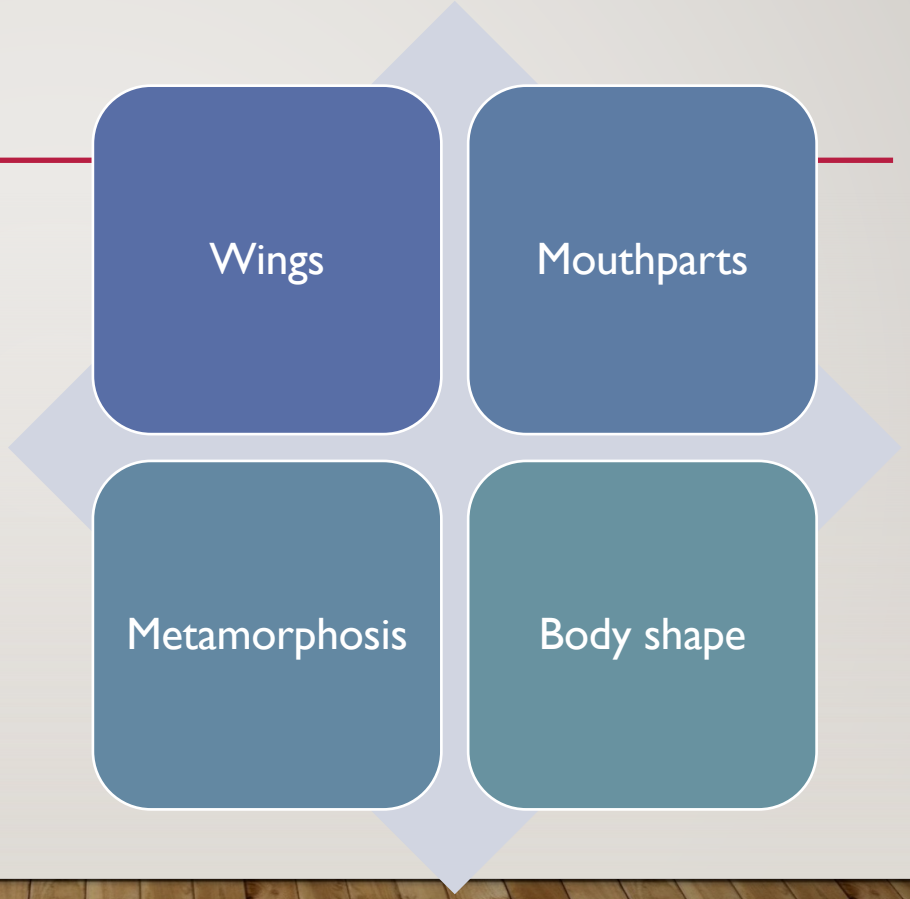
INSECT VISION

https://demonstrations.wolfram.com/HexagonalInsectVision/

INSECT HEARING

Source: https://songsofinsects.com/biology-of-insect-song

INSECT IDENTIFICATION



COMMON INSECT ORDERS

Beetles	Flies	Ants, bees, wasps
True bugs	Butterflies & Moths	Grasshoppers & Crickets

BIODIVERSITY

- Variety of all living things on earth
- Understanding what is present and how plants and animals interact
- Plants produce vegetation
- Insects eat plants
- Birds eat insects

TRYING TO DOCUMENT
THE INSECTS WE FIND AT
THE SUN FOUNDATION

BINGO