

## Unit 2 - Sustaining Ecosystems

### The Silence of the Frogs

- 30% of N. American frogs and toads are in trouble.
- amphibians have been around for 400 million years.
- they can live through drought, floods and winters.
- they are found in water ecosystems.
- they are exposed to land and water and the hazards of each.
- they are parts of 2 different food chains, one as frogs and one as tadpoles
- as frogs they are **carnivores** and as tadpoles they eat algae (plants) which makes them **herbivores**.

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- animals that eat both plants and other animals are called **omnivores**.
- when frogs disappear, insect pops. increase which can cause an increase in malaria (spread by mosquitos)
- tadpoles eat algae and **detritus** (waste and dead remains).
- **decomposers** break down detritus and are important recyclers in food chains.

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### Why are frogs disappearing?

#### Loss of habitat

- frogs need wetlands, ponds and lakes with clean water to breed and lay eggs and forests or fields near for insects
- they need a safe path between land and water
- humans drain wetlands and cut trees and build roads between ponds and woods

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### Air and Water Quality

- frogs have thin skin and some of their breathing is done through it
- pollutants like acid rain can pass through it
- acid rain also affects reproduction of frogs by killing eggs and deforming limbs

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### Ultraviolet (UV) Radiation

- UV radiation penetrates the thin skin and can damage cells
- There is more UV radiation now because the protective ozone layer around the Earth is weakened by human made chemicals (called CFCs)

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### Climate Change

- humans are causing the climate to warm up by burning fossil fuels
- this can lead to droughts and wetlands drying up

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