Ultraviolet-B Radiation effects on Amphibian Populations

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Objectives:
- Discuss causes of ultraviolet-B radiation.
- Discuss effects of ultraviolet-B radiation on amphibian populations.
- Discuss amphibian defenses to ultraviolet-B radiation.
- Discuss why this is the most detrimental cause of amphibian decline.
- Discuss who this decline may effect and why we should care.

Causes of ultraviolet-B radiation
- Human-induced production and release of chlorofluorocarbons and other chemicals
- Volcanic activity
- Impact from comets and asteroids, solar flares, and other cosmic events
**Effects of ultraviolet-B radiation on amphibian populations**

- Mutations and cell death
- Decreases hatching success of some species
- Slows growth rate
- Impairs immune system

**Amphibian defenses to ultraviolet-B radiation**

- **Behavioral mechanisms:**

- **Physiological mechanisms:**

**Why is ultraviolet-B radiation the most serious cause of amphibian decline?**

- Causes ALL habitats of amphibians
- Most persistent decline factor
- Can effect an entire species not just a localized population
- Damage to the ozone layer that causes UV-B radiation can not be reversed
Who will this decline effect? Why should we care about it?

Unknown amount of people and other species effected
What species will be next to fall to UV-B radiation?
What possible disease cures will be lost with the loss of these species?
Questions?