



## Section 2.3

# Effect of Bioaccumulation on Ecosystems

## Study Notes

By the end of section 2.3 you should be able to understand the following:

- Synthetic materials enter the food chain when plants absorb the chemicals, and they accumulate in the tissues of consumers.
- Synthetic chemicals are biomagnified at the top of the food pyramid.
- Heavy metals like lead, cadmium and mercury also bioaccumulate, with negative health affects.
- Scientists are trying methods like bioremediation to lessen the impact of these types of bioaccumulation.

### NOTES

Why are amphibians an important group of ecological indicators for scientists?

- 1.
- 2.
- 3.
- 4.

What is bioaccumulation?  
Why is the bioaccumulation of certain chemicals alarming in keystone species?

- 1.
- 2.

Why is there biomagnification at the highest levels of the food pyramid? Give an example of this phenomenon in BC.

- 1.
- 2.

## NOTES

What are persistent organic pollutants? Give an example of a POP and its effect in the ecosystem.

1.

2.

Do the Reading Check on page 96

What are heavy metals? Give three examples of heavy metals, and list their effects in ecosystems.

1.

2.

3.

4.

Do the Reading Check on page 99

List two examples of reducing the effects of chemical pollution, including bioremediation.

1.

2.