

# CASE STUDY: Discussion/Solutions

## Snow Goose - A Species and Ecosystem in Peril.pdf

HINTERLAND WHO'S WHO

Home Media Gallery WhoTube Glossary Search Français

Species Where They Live Things You Can Do Issues and Topics For Educators About Us


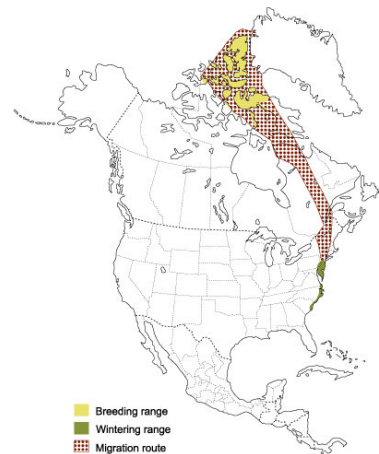


photo: Eric Reed (CWS)

GREATER SNOW GOOSE





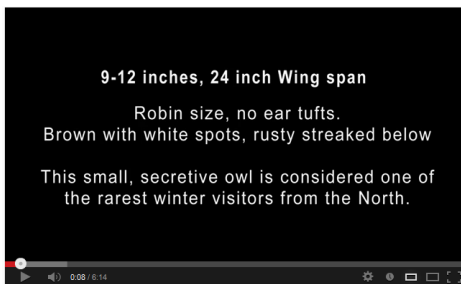
# LAB REVIEW: Barn Owl Pellet Dissection

[Lab - Owl Pellet Dissection.pdf](#)



**DUE: Wednesday, March 27th**

Check out these after you complete the lab...



Boreal Owl - Visitor From The North



female barn owl regurgitates a pellet - Audubon Starr Ranch, Ca.

## Review of Notes...Discussion

# An Organism's Niche

- The unique role of a species within an ecosystem is a **niche**
  - An **ecosystem** is all of the organisms living in an area together with their physical environment
  - It includes their physical home, the environmental factors necessary for survival, and all interactions with other organisms
  - It is different than a **habitat** (where an organism lives)

# Ways in Which Species Interact

- Interactions are categorized by how one population interacts with another
- These interactions depend on whether they harm or help one another
- Some interactions are direct, others are indirect
- This is still being studied to better understand its complexities

# Competition

- A relationship in which different individuals or populations attempt to use the same limited resource
- Each individual can be harmed by the competition
- Can occur within or between species
- Ex. Fox and coyote compete for the same prey



# Competition

## Indirect Competition

- Some species may never come in contact with each other and still compete
- Ex. One type of insect during the day and another at night

## Adaptations

- Some species reduce competition with each other by adjusting their niche
- This is called *niche restriction*

# Predation

- An organism that feeds on another organism
- The organism that is fed upon is called the **prey**
- Ex. Coyote and deer
- Many species have evolved some mechanisms to avoid or defend against predators



## NEW NOTES/DISCUSSION...

# Parasitism

- An organism that lives on another organism and feeds on the other organism is a **parasite**
- The organism that provides the nourishment is the **host**
- Ex. Ticks, fleas, tapeworms, sea-lice





# Mutualism

- A close relationship between two species in which each species provides a benefit to the other
- Ex. Humans and certain types of bacteria in the intestines
  - Humans are better able to digest food and bacteria have a place to live



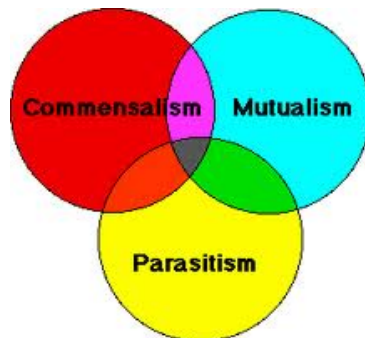
# Commensalism

- A relationship in which one species benefits and the other species is neither harmed nor helped
- Ex. Sharks and remoras
  - Sharks are unharmed and fish are able to eat what the shark doesn't



# Symbiosis and Coevolution

- A relationship in which two organisms live in close association is called **symbiosis**
  - Symbiosis is often used to describe at least one species benefiting from another
  - Over time, the species may **coevolve**
  - They develop adaptations that reduce the harm or improve the benefit of the relationship



# CO-EVOLUTION...



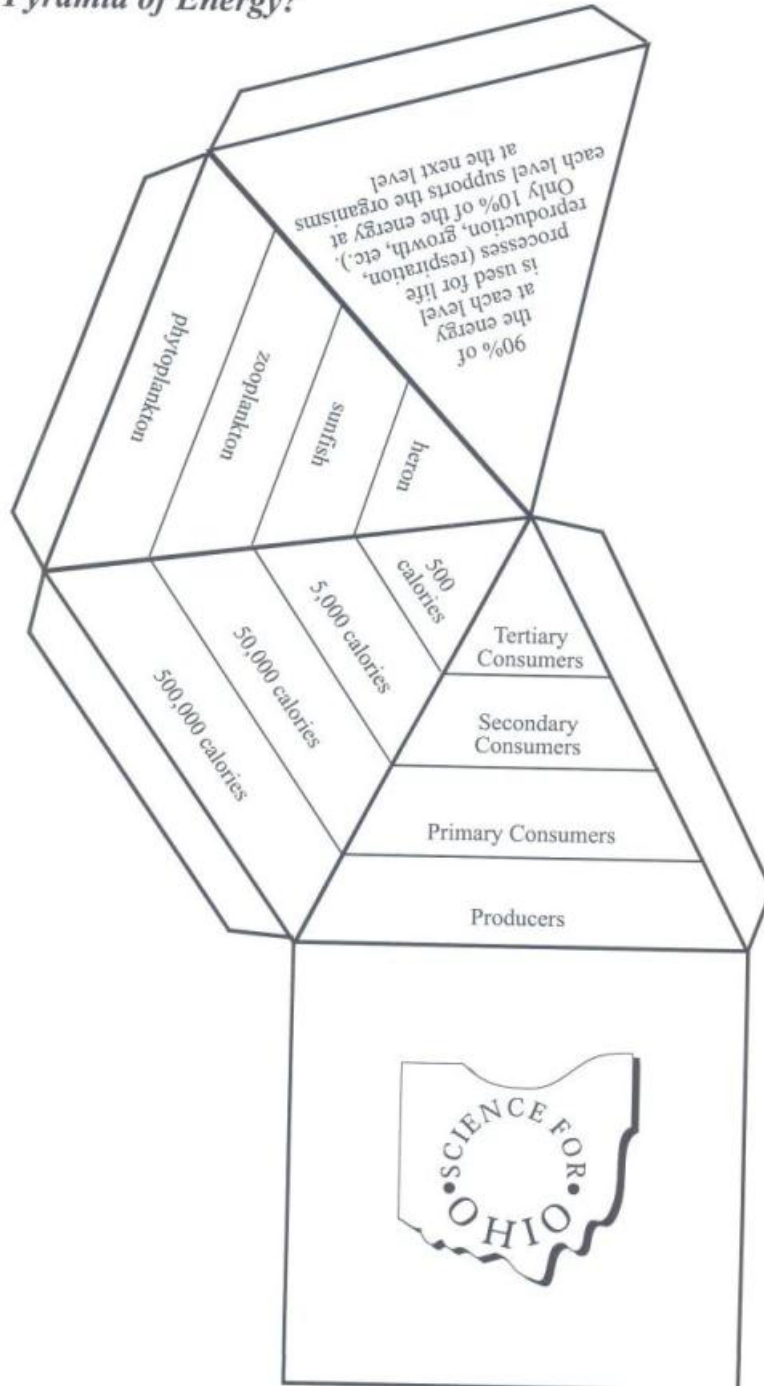
Sea Lion



Otter

# HW: Paper fold this pyramid of energy...

*What is the Pyramid of Energy?  
3D Model*



Use this page with the *Science for Ohio* What is the Pyramid of Energy? Student Information Pages.

## Attachments

---

[Snow Goose - A Species and Ecosystem in Peril.pdf](#)

[Lab - Owl Pellet Dissection.pdf](#)