

# LIGHT GEESE

We often hear about species that are At Risk (e.g., Threatened, Endangered) but it's rare to hear about a species that is designated overabundant. "Light geese"—greater snow geese, lesser snow geese, and Ross's geese—have been destroying the Arctic tundra with their mass numbers.

## Learning Objectives

- Students will be introduced to the problem light geese are causing in the Arctic Tundra.
- They will learn about the three species of geese: their physical characteristics, breeding habits, eating habits, and migration routes.
- Students will learn through static and digital displays. There will also be fun quiz questions as a way for them to understand what they're learning.

## Program Overview

Students can expect to spend approximately an hour in this room. After watching the video, answering goose fact questions, and reading the displays, teachers might like to:

- Discuss the Arctic Tundra and why it's important
- Brainstorm ideas for how the problem might be solved
- Discuss vocabulary words





## Vocabulary Words

**Arctic tundra** – a region in the northernmost part of the world, mostly found within the Arctic Circle.

**Permafrost** – the ground is permanently frozen underneath a thin layer of top soil. Sea levels rise when the permafrost melts.

**Light geese** – Greater snow geese, lesser snow geese, and Ross's geese.

**Overabundant** – an excessive number of animals in an area; opposite of Threatened.

**Scientific names** – “Binomial nomenclature” or “Binary nomenclature” is the method used for formally naming living species. It's mostly Latin although other languages can be used. The scientific name for humans is *Homo sapiens*.

**Migration** – Geese, like many human grandparents, like to travel south in the winter when their breeding grounds freeze up and their food supply disappears.

**Grub** – “to dig shallowly in soil.” When geese grub, they are pulling out the plants by the roots to eat. This is a problem because the plant won't regrow if there's no root.



## Conservation

Conservation means doing what we can to make sure Alberta's wildlife and fish populations are healthy and that the land and water they live in is too. Alberta Conservation Association will be exhibiting different displays over the next five years to provide educational outreach about some of the challenges conservation faces.

### Suggestions for discussing conservation include:

- What conservation means
- How hunting/fishing/trapping play a vital role within conservation
- What individuals can do to get involved in conservation (e.g., following fishing and hunting regulations, volunteering for citizen scientist opportunities, treating habitat with respect)
- The research and science that is part of conservation



### Additional Resources:

- Alberta Conservation Association [www.ab-conservation.com](http://www.ab-conservation.com)
- For information on fishing/hunting/trapping regulations: [www.albertaregulations.ca](http://www.albertaregulations.ca)
- This is a good place to start for citizen science opportunities: [aep.alberta.ca/about-us/special-weeks/environment-week/documents/CitizenSciencePrograms-Mar2013.pdf](http://aep.alberta.ca/about-us/special-weeks/environment-week/documents/CitizenSciencePrograms-Mar2013.pdf)



wildlife | fish | habitat



**These are the list of questions, as well as the correct answers,  
that will appear in the digital presentation**

- 1. Who sits on the eggs?**  
(Explanation: The female exclusively sits on the eggs while the male guards and provides for his growing family.)
  - Female
- 2. How many days between when the egg is laid and when it hatches?**  
(Explanation: Then they are ready, by fall, to fly long distance.)
  - Between 21 and 25 days
- 3. How long does it take for goslings to learn to fly?**  
(Explanation: They need to learn to fly by the time they leave the Arctic to go back to their winter homes.)
  - Snow, 42-50 days; Ross's, 40-45
- 4. How long do a breeding pair stay together?**  
(Explanation: They usually choose a mate with the same colour morph as the family members they grew up with.)
  - For life
- 5. How wide is a Ross's goose's wingspan?**  
(Explanation: It's just a bit smaller than this tv screen.)
  - 135 cm (51 inches)
- 6. How much does a greater snow goose weigh (average)?** (Explanation: This is just an average; their weight can change depending on how far they've flown and how much they've eaten)
  - 3 kg (6.6 pounds)
- 7. The sharp, serrated black edge of the bill causes the bird to have what expression on its face?**  
(Explanation: It is sometimes called the "grinning patch".)
  - Smile
- 8. What colour are the goslings?**  
(They take a full year to grow into their adult colouring.)
  - White-phase are yellow, blue-phase are nearly black
- 9. What is an average brood size for Ross's/Snow goose?**  
(Explanation: They could literally double the population in one year if every couple had a full brood.)
  - Snow, 2-6; Ross's, 4
- 10. How long do Ross's/snow geese live (average)?**  
(Explanation: They live a relatively long life.)
  - Snow, 15-25 years; Ross's, 10-25 years
- 11. How many geese do wildlife biologists feel would be ideal?**  
(Explanation: The Arctic tundra is in jeopardy because there are WAY TOO MANY geese. The actual land can only handle so many.)
  - Around 8 million
- 12. How far do light geese fly in a year?**  
(Explanation: That's a lot of energy used; no wonder they're hungry!)
  - Around 10,000 km there and back
- 13. Where do snow/Ross's geese most commonly winter?**  
(Explanation: We can't blame them for following the sun; many of us would like to be warm year-round.)
  - Snow, Mexico and southern states; Ross's, California
- 14. What do scientists call the paths along which geese migrate?**  
(Explanation: The species come from different places but all meet up in the Arctic.)
  - Flyways
- 15. Where do the geese frequently stop while migrating?**  
(Explanation: It's a long way to fly straight through; they stop and eat often.)
  - Open areas (like lakes and farm fields)



Alberta Conservation  
Association

wildlife | fish | habitat