

THE TAIGA

The Boreal Forests

**FOR SEMESTER 4 (CBCS)
GEOGRAPHY**

PAPER 10 ; UNIT : II ; TOPIC : 9



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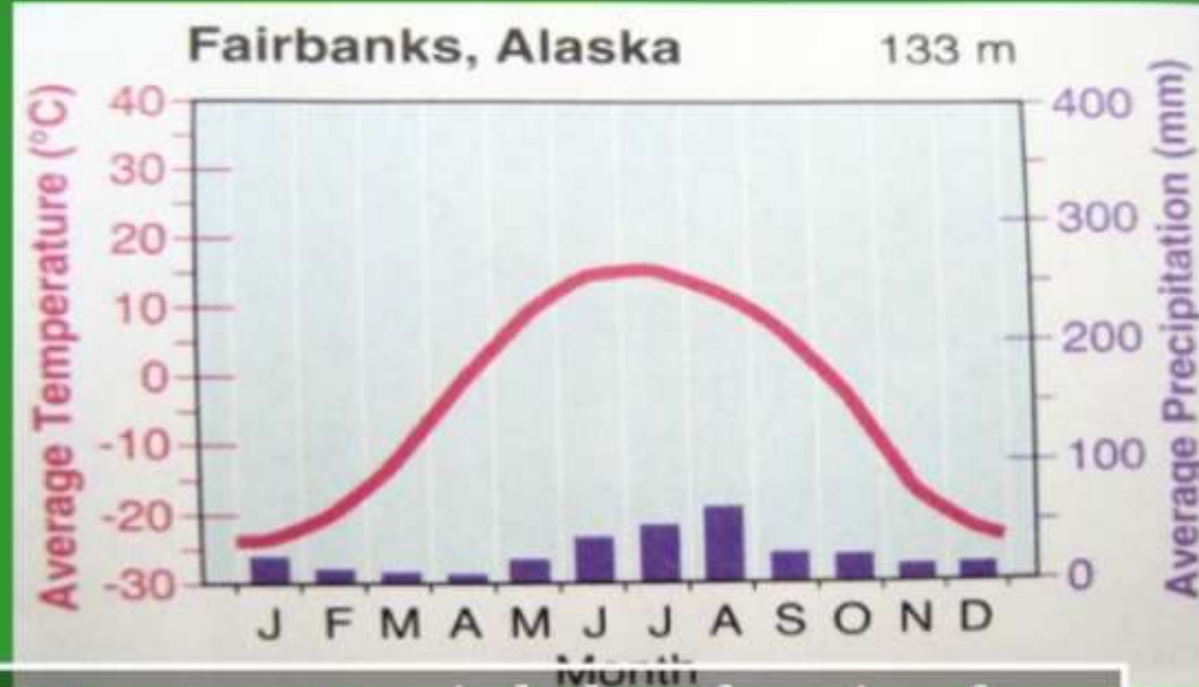
**Government Girls' General Degree College,
Kolkata -23**



- coniferous or boreal forest biome
- the largest biome in the world

* Forest and other woody biomass (FAO, 2005)
** The boreal forest (310 M ha) is the forest and wood wooded land area within the boreal region (545 M ha).
This map will be updated as the results of further research into the boreal biome known.
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Climate



- average temperature is below freezing for half of the year
- precipitation: 30 - 85 cm (12 - 33 in) in rain, dew, and snow

Abiotic Factors



- long, bitterly cold winters
- short, mild summers only enough to allow the ground to thaw

Abiotic Factors (cont.)



- moderate precipitation, mainly in the summer
- high humidity
- angle of sun creates decent amount of light but little heat energy

Abiotic Factors (cont.)

- acidic, nutrient-poor soil
 - decomposition of vegetation on the forest floor is slow due to cold weather
 - rocky covered in undecayed leaf litter



Abiotic Factors (cont.)

- mild fires occur once every 20-200 years
- clears out larger trees



Abiotic Factors (cont.)

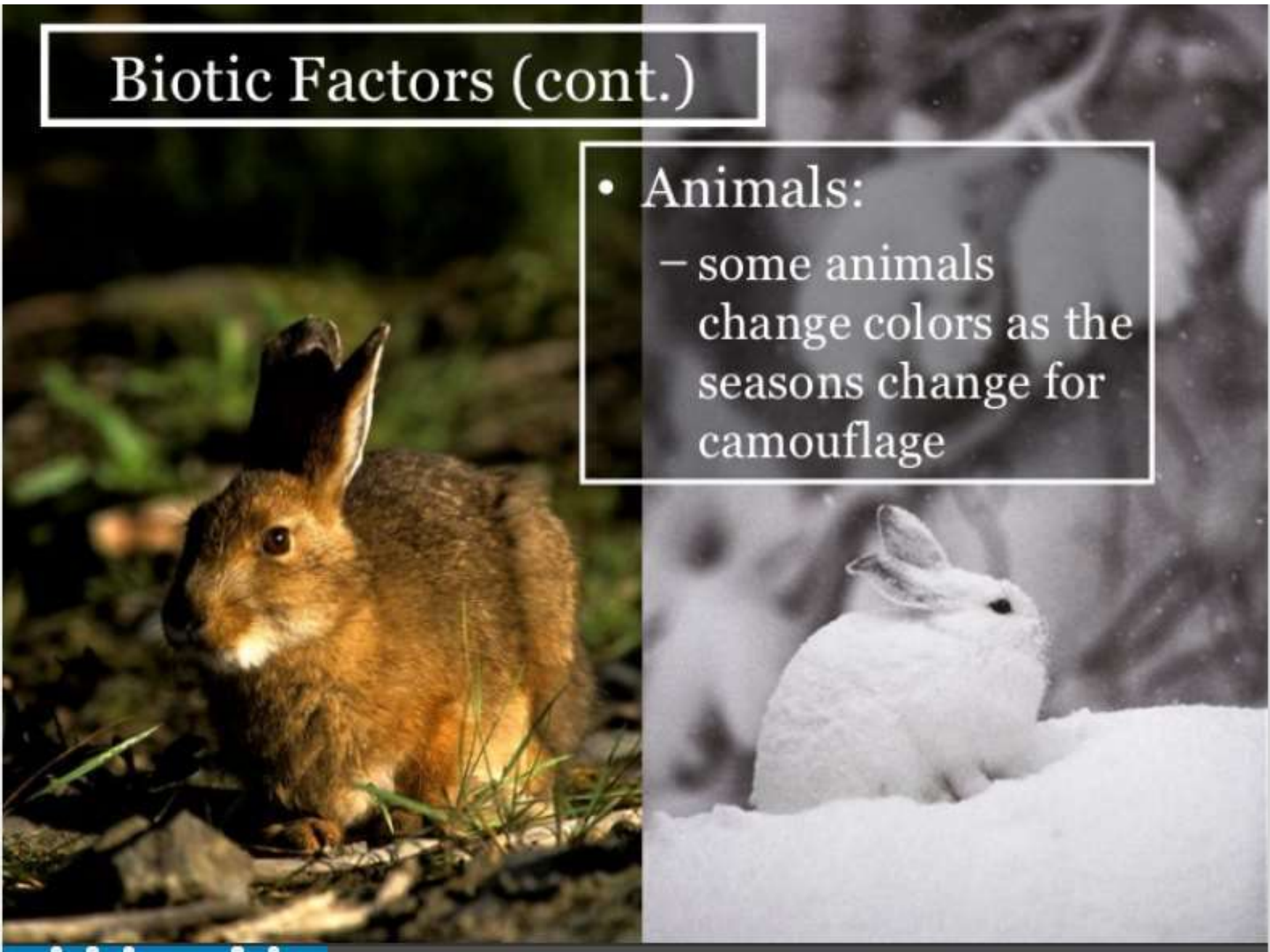
- mild fires occur once every 20-200 years
- clears out larger trees

Biotic Factors(cont.)

- **Animals:**
 - hibernate during the winter or migrate
 - layers of fur and feathers protect from cold when hibernating

Biotic Factors (cont.)

- Animals:
 - some animals change colors as the seasons change for camouflage



Biotic Factors (cont.)



- Plants:
 - needles to reduce water loss
 - branches flexible to withstand the weight of heavy snow
 - shaped to shed snow with ease

Flora of the Taiga



White
Spruce



Douglas
Fir

Flora of the Taiga (cont.)



Hemlock



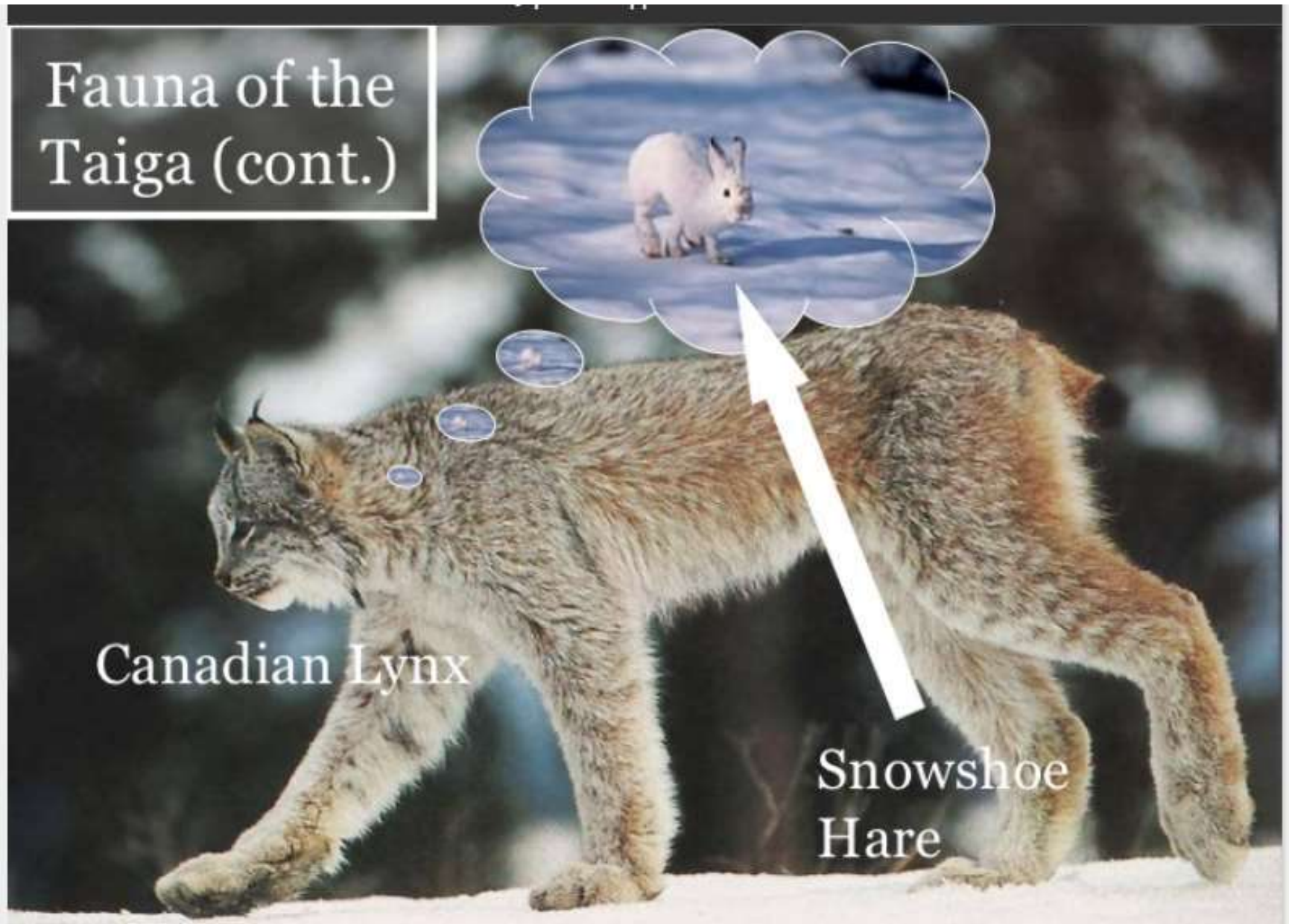
Birch

Fauna of the Taiga

Goin' to Gramma's



Fauna of the
Taiga (cont.)



Canadian Lynx

Snowshoe
Hare

Predators of the Taiga



Grizzly bear



Bobcat

Weasels of the Taiga

Wolverine



Ermine



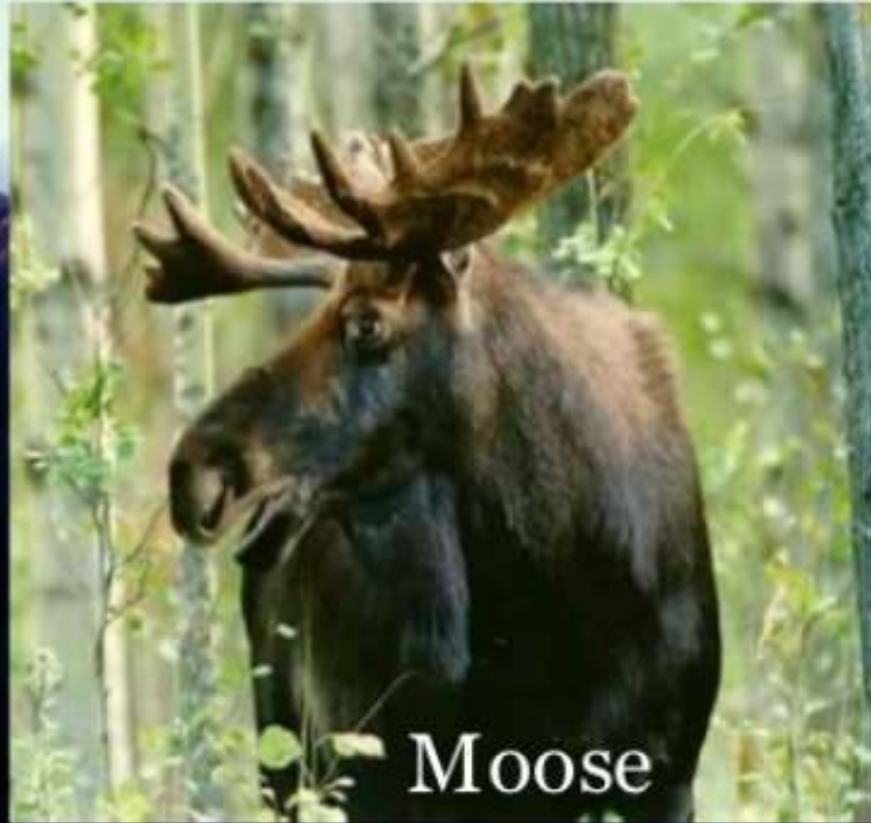
Mink



Marten



Deer of the Taiga



Small Mammals of the Taiga



Red Squirrel



Vole

Birds of the Taiga

White-throated sparrow



Hawk owl



Red-throated loon

Indigenous Culture

- the Canadian Boreal Forest is home to people of the First Nations
- native Canadians have lived within the forest environment for thousands of years

Indigenous Culture (cont.)

- traditional rules and laws guide behavior with respect to resource access, use, and trade and governed territorial boundaries

Issues in the Taiga


- Endangered animals (i.e. beavers, wood bison)
- Logging and deforestation
- Pollution (i.e. acid rain, oil stains)





Why?

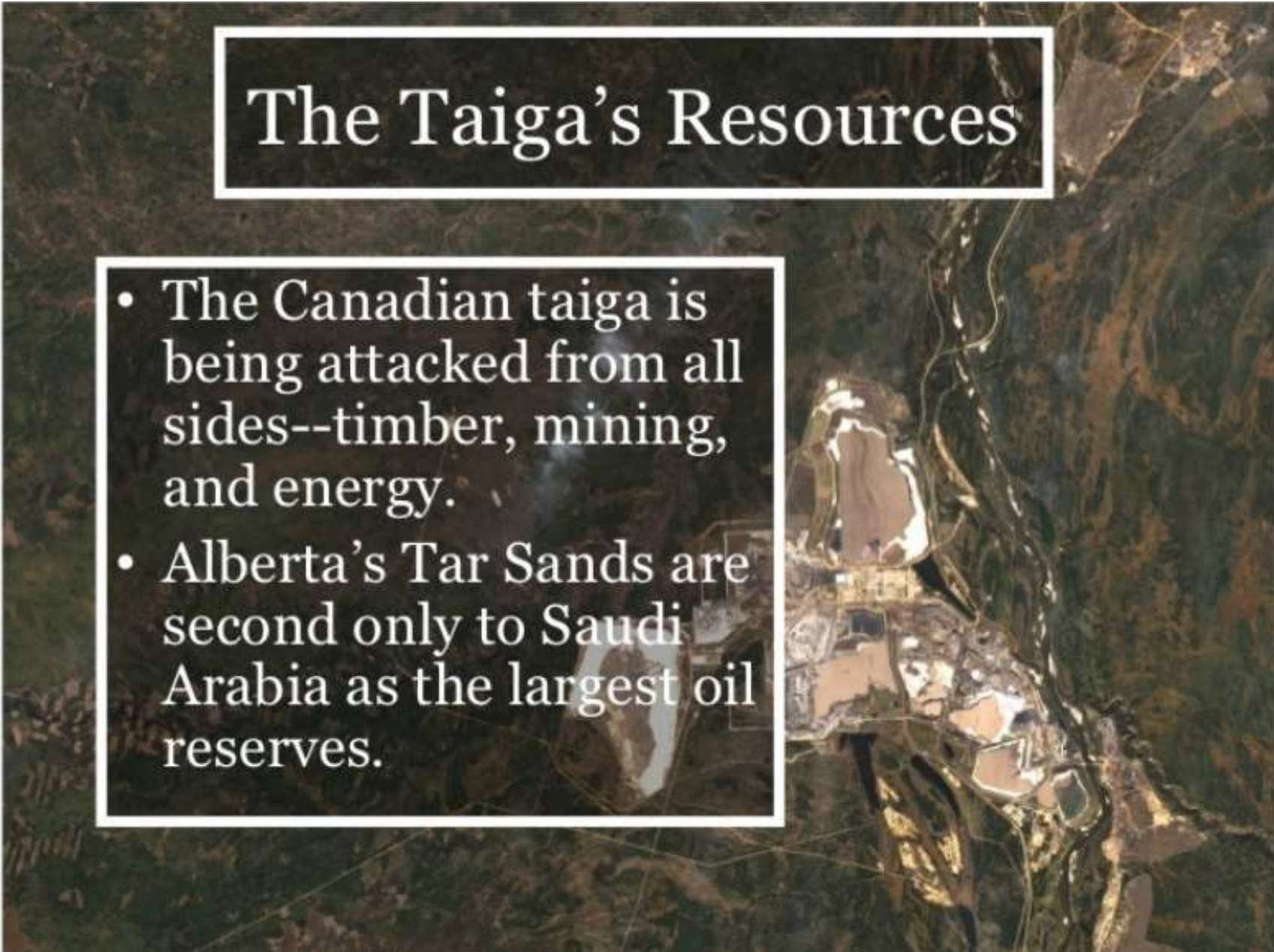
- There is a huge demand for oil in the world, as resources are running out
- Forests can also provide resources for paper products like Kleenex, which don't use recycled paper.



The Boreal Forest

- The Boreal forest is the largest untouched ecosystem on the planet.
- Also the world's largest storehouse of carbon, meaning if disturbed, it will cause a lot of greenhouse gases.

The Taiga's Resources

An aerial photograph of a taiga landscape. A winding river flows through the center of the image. To the right of the river, there is a large industrial site with several large, light-colored structures and a network of roads. The surrounding area is covered in dense, dark green forest.

- The Canadian taiga is being attacked from all sides--timber, mining, and energy.
- Alberta's Tar Sands are second only to Saudi Arabia as the largest oil reserves.

Destruction by Humans



When the forest undergoes clear-cutting by humans, there are less trees producing oxygen and more carbon, contributing to global warming.

HOW TO DESTROY CANADA'S ANCIENT BOREAL FOREST, IN 3 EASY STEPS:

STEP 1: PULL OUT A KLEENEX FACIAL TISSUE

STEP 2: PUT IT TO YOUR NOSE

STEP 3: BLOW



Canada's ancient Boreal forest, essential in the fight against global warming and home to woodland caribou and billions of migratory birds, is being clearcut to supply the Kimberly-Clark Corporation with hundreds of thousands of trees to make disposable tissue products, including Kleenex facial tissue. Every day, the Boreal forest is flushed down the toilet or thrown away by unsuspecting consumers across Europe.

By choosing more recycled fibre and less trees for its disposable tissue products, and by committing to environmentally sound logging operations, Kimberly-Clark could end its part in the destruction of ancient forests like the Boreal.

Tell Kimberly-Clark that you want it to stop destroying the Canada's Boreal forest. Visit www.stopkleenex.com

GREENPEACE

Who is affected?

- There are no longer many people living in the heavily forested areas
- People all over the world are indirectly affected by more global warming.
- Animals that live in the taiga are mostly affected, like caribou, wolves, eagles and bears.

Protect our Boreal Forest.

Margaret Atwood
Robert Bateman
Edward Burtynsky

Endangered Animals



- Beavers
- Wood Bison
- Siberian Crane
- Siberian Tiger



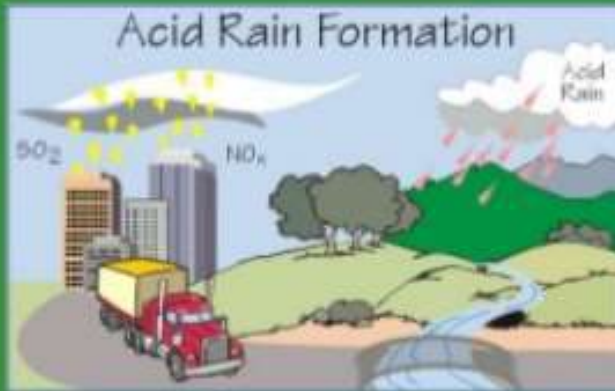
Logging and Deforestation

- White pine trees and spruce trees have been and is still under the pressure of human population
 - close to extinction in the taiga biome.



Pollution

- Acid rain have caused vast areas of land in Scandinavia to slowly die off
- Soil erosion causes water pollution and clogs up rivers and streams
 - can damage the life of aquatic animals.
- Pollution from industries, such as oil spills, can poison the water
 - causes many deaths of animals and plants through **biological magnification**



Potential Future

- More government-protected parks for endangered animals, plants, as well as trees.
- Encourage companies to use wood from sustainable forest; they are logged in a way that they will have the least impact on the ecosystem.
- Greentruck is a program designed by the US Environmental Protection Agency to prevent oil spills.
- The Species At Risk Act (SARA) in Canada



Smithsonian
National Zoological Park

Friends of
the National



A stage with green curtains and a spotlight. The text is centered on the stage.

And our **IMAGINARY**
animal from the taiga
biome is...

The Canadian Forest Leaper



- One of the most feared wild **IMAGINARY** animals of the taiga
- Enjoys hunting anything that moves
- Climbs up trees, hides in the foliage, and pounces when their victims are below
 - Usually hunts in groups
- Bottom line: Does not make a good pet.

Information/Picture Sources

- <http://www.blueplanetbiomes.org/taiga.htm>
- *Prentice Hall Biology book*
- <http://www.mbgnet.net/sets/taiga/index.htm>
- <http://www.cotf.edu/ete/modules/m sese/earthsysflr/taiga.html>
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- <http://www.taiga.org/>
- <http://commons.wikimedia.org/wiki/Category:Taiga>

Credits

All work concerning research and creation of this presentation

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Period 4

THANK YOU