

VOICES OF THE BOREAL IS PRODUCED BY





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INTRODUCTION

The Boreal Forest is the Earth's largest terrestrial ecosystem. Scientists describe it as being circumpolar – but for the separations created by the oceans, the boreal forest encircles the globe.

In Alberta, the vast boreal forest is a place with many users and many stories to tell. The Voices of the Boreal video program profiles five individuals who live and work in the Alberta's Boreal; included are the voices of industry professionals, biologists, and those who simply enjoy living and working in the region.

economically, socially and even emotionally. Highlighting the career experiences of those profiled in the video, students will be exposed to the natural resources, career opportunities and the multitude of motivations that draw so many people to life in the boreal region.

CURRICULUM CONNECTIONS

Inside Education believes that the Voices of the Boreal is a video resource with a multitude of cross-curricular applications. It has been designed for use in junior high and (senior) high school classrooms. The Alberta Program of Studies connections that follow are not meant to be exhaustive, rather to identify important curriculum relevance. We encourage science, social studies and humanities educators to consider incoperating Voice of the Boreal into lessons related to Alberta's natural resources, the boreal forest and careers.

Career and Life Management

General Outcome 3: students will develop and apply processes for managing personal, lifelong career development.

Students will:

- C1. examine the components of effective career development as a lifelong process
- C2. update and expand a personal profile related to potential career choices
- C3. examine the relationship among career planning, career decisions and lifestyles

Health and Life Skills

Life Learning Choices: students will use resources effectively to manage and explore life roles and career opportunities and challenges.

USING THIS RESOURCE

With the aim of enabling students to make informed decisions about their career and life choices, high school career educators will find this video useful for students interested in pursuing careers in Alberta's boreal forest region.

The Voices of the Boreal is 27 minutes in length and broken into five segments that are approximately 5 minutes each. The video can be viewed as a whole, or each segment can be viewed individually. Inside Education recommends teachers engage their students in discussions motivated by each of the five segments of Voices of the Boreal. What follows are recommended guiding questions to stimulate discussion and debate about working and living in and with Alberta's boreal forest..

Themes: Careers | Technology | Innovation | Ecology

INCLUDED IN THIS VIDEO DISCUSSION GUIDE:

Video synopsis and discussion

VOICE #1: **Jeffrey Marcel** - Oil Sands Heavy Hauler Operator

VOICE #2: Art Bauer - Teacher & Boreal Forest Resident

VOICE #3: David Latham - University Wildlife Biologist

VOICE #4: **Kim Johnston** - Field Production Engineer-in-Training

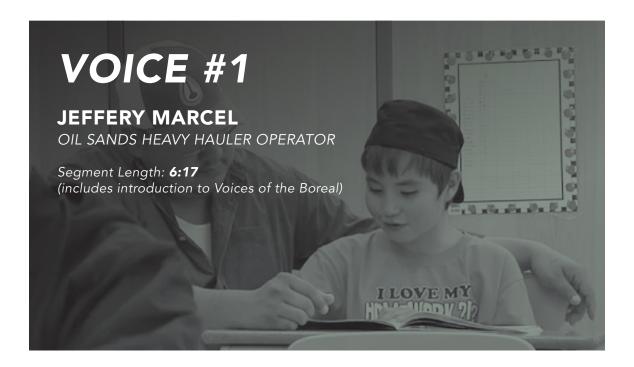
VOICE #5: **Ray Hilts** - Forest Management Planner

General discussion questions

Extension activities

Glossary

Weblinks



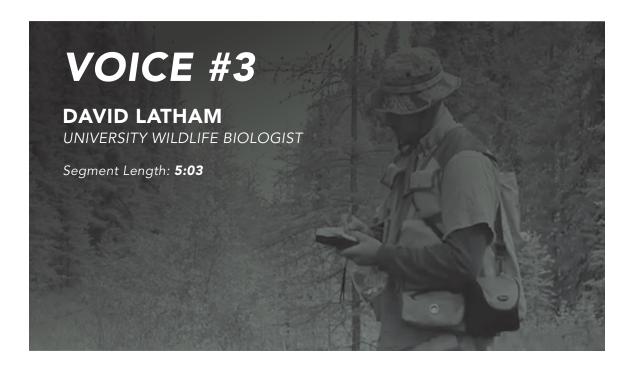
Jeffery Marcel is an aboriginal man from Fort Chipewyan (called "Fort Chip" in the segment). This section identifies the educational opportunities that development in the boreal forest have motivated and the careers that are possible for young people. Jeffery describes some of the historical career and educational challenges that have been overcome by some of the people in his community by choosing to work in the nearby Alberta oil sands.

- The introduction to this segment says that people are "part" of the forest. Have you ever thought of yourself as being PART of an ecosystem? Why or why not?
- Jeffery Marcel states that his career in the oil sands is "a different way of living off the land" than that of his ancestors. Explain what you think he means by this statement.
- Jeffery Marcel calls the heavy hauler "a truck on steroids". List some of the technical features of the heavy hauler and brainstorm some of the related jobs that would be required to keep the equipment in good working condition.



Art Bauer is a classroom teacher who has chosen to build his home within Alberta's boreal forest. He believes in a personal connection to the land even though his work takes him to a more urban setting. Not only do he and his family recreate in the outdoors, Art operates a small sawmill on his land – harvesting the trees on his property, using some of the lumber for his own purposes while generating some income for his family. Importantly too, Art endeavors to pass on to his children a deep respect for living in this special place.

- Describe what the narrator means when he says the forest can sustain us in "emotional, spiritual and material ways".
- How would working in the forest increase your understanding of the forest ecosystem?
- What does Art Bauer mean when he says you not only experience nature but also become a part of it when you live and work in the forest?



David Latham is a wildlife biologist working in Alberta's boreal region. His research takes him deep into the wilderness to study the interrelationships between human development and wildlife, especially the predator/prey dynamic between wolves and boreal caribou. David's personal connection to the forest is clear – quite obviously the most rewarding part of his career is being out in the field. Watching David 'in action', students will see both the field-based and lab/computer model-based work that many wildlife scientists experience.

- In the video we see David Latham, a biologist, wading waist deep in a boreal wetland. Does this change your perception of research-based careers?
- What is the value of having the multiple users of Alberta's boreal forest (industry, government, researchers, recreation users, municipalities etc.) working together?
- This segment demonstrates a significant amount of technology being used to study boreal caribou and wolf predator/prey relationships. Can you identify them? Is it possible to be a 'tech-savvy' person and a nature lover in your life and career?



Kim Johnson is an engineer-in-training, meaning she is furthering her studies prior to being designated a Professional Engineer (*P.Eng.*). She has traveled to the Grande Prairie region, in the heart of Alberta's boreal forest, to work for an oil and gas company. Students will be interested in her observations about the vastness of the ecosystem, particularly how she enjoys the opportunity to work surrounded by nature more than her previous experiences working and living in "The City". While not really a 'Fish Out of Water'-story, this Voice does talk about the challenges and opportunities of life in the boreal in comparison to life living in the city.

- Kim mentions that some of the 'big decisions' are made in the office towers in cities like Calgary. How might this affect the development of the boreal forest?
- Discuss how on-the-job training impacts the experience of the employee.
- Could you see yourself completely changing where you live moving from urban to rural or rural to urban (whichever best applies to your situation)?



Ray Hilts works for a forest products company, Forestry has been an important industry in the town for generations; oil and gas development has significantly increased in the area. The industry has caused rapid growth in both Whitecourt and in the number of users of the forest landscape. Ray outlines the depth of information required to develop his forest management plans, especially when considering the multitude of industrial and recreational uses of the boreal forest.

- Explain why forestry is referred to both as an art and a science.
- Ray lists a series of values that are considered when he develops the forest management plans for his company. Ask students to describe why each of the following would need to be considered prior to harvesting trees to make forest products:
 - a. Biodiversity
 - **b.** Timber supply
 - c. Watersheds
 - d. Wildlife habitat
 - e. Recreational users
 - **f.** Aesthetic values (Defn. Maintaining the forest for its pristine nature and especially its beauty)
- Ray Hilts lives in Whitecourt, Alberta often described as an 'industry town'. Choose another town in Alberta and explore the contributions of local industry has made to the community.

GENERAL DISCUSSION QUESTIONS

- 1. Which position(s) appeals to you and why?
- 2. Evaluate the skill sets of one of the individuals featured in the video. What personal, professional skills and knowledge would they need to be effective in their position?
- 3. Discuss the contributions of each position / lifestyle in helping to understand the complex nature of the boreal forest.
- 4. Explain the difference between a job and a career. Choose an individual featured in the video and differentiate between his/her career and job.

EXTENSION ACTIVITIES

- 1. Research what sort of training each individual would need to attain his or her position. From this research, have student design a career advertisement that would be suitable to attract the 'right' type of person to that career.
- 2. Working in pairs, have students choose a career in the boreal forest, then design questions and role-play a job interview.

GLOSSARY

- **BOREAL FOREST** One of three main forest zones in the world located in northern regions and characterized by the predominance of conifers.
- **NATURAL RESOURCE MANAGEMENT** an area of work concerned with the overall administrative, economic, legal, social, scientific and technical aspects of natural resource protection and regulation.
- **SOFTWOOD LUMBER** term used to describe wood from conifers or needle-bearing trees. Softwood is the wood used as the prime structural materials in most building projects though it is not 'soft'.
- **STAKEHOLDERS** a person, group or organization that has direct or indirect stake in an issue because it can affect or be affected by the outcome.
- **STEWARDSHIP** the science, art and skill of responsible and accountable management of resources.
- **SUSTAINABILITY** maintaining the health, capacity, productivity, diversity and overall integrity of our resources over the long term to ensure we can meet the needs and wants of the current generation and future generations.

USEFUL WEB LINKS

- Alberta Forest Products Association www.albertaforestproducts.ca
- Alberta Government
 - Alberta Learning Information Service www.alis.alberta.ca
 - Alberta Sustainable Resource Development www.srd.alberta.ca
- Alberta is Energy www.albertaisenergy.ca
- Canadian Centre for Energy Information Careers www.centreforenergy.com/education/careers/
- Canadian Forests a listing of current forest-related careers available in Canada www.canadian-forests.com/job.html
- Canadian Institute of Forestry www.cif-ifc.org
- Petroleum Human Resources Council of Canada www.petrohrsc.ca
- Work Wild www.workwild.ca