

A GUIDE TO GREEN JOBS IN CANADA



**VOICES OF
INDIGENOUS
PROFESSIONALS**





FOREWORD

Project Learning Tree Canada (PLT Canada), an initiative of the Sustainable Forestry Initiative (SFI), inspires and helps youth to pursue careers in the forest and conservation sector. One of our greatest priorities is supporting Indigenous youth and their communities.

The people you will meet in this guide have all taken different paths to get where they are. They've tried different jobs, studied at various levels, and had diverse experiences before landing in these roles. Some of them currently work for a provincial or territorial park. Many others work in the forestry sector for organizations whose lands are SFI-certified. This certification means that they recognize and respect Indigenous Peoples' rights, support research and biodiversity, and ensure prompt regeneration of forests after sustainable harvesting—and so much more! SFI-certified organizations are part of a natural solution to local, national, and global climate change issues.

Thanks to these incredible employers across the SFI and Canadian Parks Council networks, we've succeeded in placing thousands of youth aged 15-30 into Green Jobs since 2018—including over 300 Indigenous youth from over 80 different Nations.

There are so many paths and so many amazing destinations to discover in the forest and conservation sector. On behalf of the entire PLT Canada team, good luck on your journey!

Kathy Abusow
President and CEO
Project Learning Tree Canada



Paul Robitaille
Sr. Manager, Indigenous and Youth
Relations Sustainable Forestry Initiative





MICAH JOHN MESSENT

MAY 18, 1995 — MARCH 10, 2019

This guide is dedicated to Micah John Messent, who tragically lost his life while en route to join other young conservation leaders at the United Nations Environment Assembly in Kenya.

Micah found inspiration in his Métis heritage and the natural beauty of Vancouver Island. He was passionate about sharing his love of nature and building understanding between communities. By sharing his voice and his personal story, Micah inspired change in BC Parks and in the lives of the friends, colleagues, and communities he worked with. His story and legacy continue to inspire people of all kinds.

Our voices can help people discover new passions and inspire them to action. They can open people's eyes and bring them closer together. Our voices have the power to transform the world.

The stories in this guide are those of regular people, told in their own voices. Like Micah, each has a deep love of nature and works towards growing a brighter future for us all. We hope that their voices will help inspire you to find and follow your own passion—whatever it may be!

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VOICES OF INDIGENOUS PROFESSIONALS IN GREEN JOBS

Just imagine where you could be!

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SUSTAINABLE
FORESTRY
INITIATIVE
91-00001



PROJECT
LEARNING
TREE
CANADA

PLT is an initiative of SFI





RICHARD GORDON

Inuk, Inuvialuit

SENIOR PARK RANGER

Qikiqtaruk-Herschel Island Park

Richard spends April to September in Qikiqtaruk-Herschel Island Park supervising a team of park rangers, supporting conservation and climate change work.

 Yukon Parks is a PLT Canada Green Jobs employer



MY LOVE OF NATURE COMES FROM...

As a young child, I travelled with my parents out on the land for subsistence harvesting. We needed to make sure we had enough food for the winter. I grew up in and around what is now Qikiqtaruk Island Park. There is a lot of oral history in my family celebrating our relationship with the land. The passion the Elders and my parents have shown for the land inspires me.

I BECAME A PARK RANGER BECAUSE...

I wanted a job that fit with my approach to the land and my culture. When I became a park ranger on Qikiqtaruk Island, it opened my eyes. An important part of my job is learning oral history from the Elders. I'm responsible for ensuring oral histories are shared in a respectful, culturally appropriate manner to positively influence management decisions in the park.

BEING INDIGENOUS IN A GREEN JOB MEANS...

As an Indigenous person, I see how much we need to continue programs that get people on the land. The land is where we came from. The only thing that changes is the legislation we manage it under. In my role, I can ensure that people, especially youth, are getting on the land. We involve all ages in the park. There is an Elder and youth program in the summer. Over two weeks, the youth get to share the Elders' knowledge. The youth are passionate about protecting the land. We must engage them in planning.



High School

(1975)

Board of Directors

Aklavik Hunters &
Trappers Committee
(1986-1998)

Roughneck Oil & Gas Industry

Dome Petroleum
(1978-1985)

Park Ranger

Yukon
Government
(1997-2000)

RICHARD'S CAREER TIP

"By combining oral history with diplomas and degrees, youth can become ambassadors. We need youth to be ambassadors for scientific and Indigenous communities."

Upgrading (GED Studies) Grade 11

Arctic College
(2000-2001)

Management Studies

Arctic College
(2000-2001)

Senior Park Ranger

Qikiqtaruk-Herschel Island
Park-Yukon Government
(2001-2020)



As a child, Richard would travel on the land with his parents for subsistence harvesting.



GUY WRIGHT, RPF

K'òmoks First Nation

NATURAL RESOURCE MANAGER

K'òmoks First Nation Forestry LP

K'òmoks First Nation Forestry supports the prosperity of the K'òmoks First Nation by using sustainable forest management to create economic opportunities. The K'òmoks First Nation is also certified to the SFI Small-Scale Forest Management Module for Indigenous Peoples, Families, and Communities. Guy's native name is "wa'kadzi ala'kila," which means "a good man and giver of elk blankets."



K'òmoks First Nation Forestry is an SFI-certified organization



MY LOVE OF NATURE COMES FROM...

I can still remember being in my grandpa's canoe with my dad. We were on a crystal-clear lake. I could see the bottom and trout swimming around. My grandpa would lure the trout up. We would catch them and fry them up beside the creek, then play "I spy" the whole way home.

My wife had similar experiences growing up. Now, once a month, we take a family day out in the bush. We get our kids out of the house and into the mountains. It's an important part of raising our kids.

I BECAME A FORESTER BECAUSE...

I like being outside. I became interested in forestry while working as a forestry assistant for KDC Forestry Consulting. My supervisor was a University of British Columbia (UBC) grad who encouraged me to do some academic upgrading to get into the UBC Faculty of Forestry. I then landed some summer student work. An opening came up in forest engineering. Planning roads and boundaries was like a puzzle. You need to put the pieces together and make it work. I was hooked!

BEING INDIGENOUS IN A GREEN JOB MEANS...

I pride myself in getting the best return for our trees, which are renewable assets. Our forestry work supports education and all sorts of other important things for the K'òmoks First Nation. I want to help keep growing my First Nation's businesses so our people can have even more opportunities. Hopefully I can train and mentor someone to take it over in the future.

High School Graduation

(1988)

Construction Labourer

(1990-1991)

Salmon Farm Worker

Stolz Sea Farms
(1994-1995)

Fisheries Field Tech

DR Clough Consulting
(1996-1997)

Green Chain, Sawmill

(1988-1990)

Fisheries Technician

Malaspina College
(1992-1994)

Paleontologist Assistant

Courtenay Museum
(1997-1998)

GUY'S CAREER TIP

"Always ask questions—worst you can get is a 'no.' I am still asking questions to my forestry peers after many years of working in this field."

KDC Forestry Consulting Assistant

(1998-1999)

Resource Management

Faculty of Forestry, UBC
(1999-2003)

Forestry Technician

West Coast Timber Consultants
(2003-2007)

Aerodrome Maintenance Supervisor

Canadian Natural Resource Limited
(2007-2011)

Forestry Tech, Supervisor

Aelksun Forestry & Consulting
(2011-2015)

Natural Resource Manager

K'ómoks Economic Development Corporation
(2015-Present)



Guy helps to ensure that forests grow back healthy after sustainable harvesting.



SHELLEY STEWART

Syilx, Upper Nicola Band

BUSINESS OWNER AND FOUNDER

SRS Trucking and Bar S Ventures

Shelley and her husband Rob run two companies and have 27 employees. Shelley is the main logging contractor for Stuwix Resources Joint Venture, an SFI-certified company. Stuwix Resources' General Manager, Lennard Joe, is also profiled on page 14. Companies that are certified to SFI are committed to sustainably managing forests for future generations.



MY LOVE OF NATURE COMES FROM...

Growing up on my family ranch in Douglas Lake, B.C., animals were a part of our daily lives. My family and I travelled for rodeos all over western Canada and the U.S. Horses have always connected me with the outdoors and my culture. They are so powerful, physically and spiritually. I recall going for drives in the mountains with my family, hunting with my dad and brothers and picking Saskatoon berries with my mom. I didn't love the ants that crawled on the berry trees though!

I STARTED A BUSINESS IN THE FORESTRY SECTOR BECAUSE...

My dad is a logger, and I was raised on timber dollars. When I was a young girl, I always wanted to be with my dad. I told him that someday I would buy a logging truck so that he and I could work together every day. When I was 19, I followed through on that dream! I am proud to say that Bar S Ventures uses all the fibre we harvest. This reduces wood waste and lessens our carbon footprint.

BEING INDIGENOUS IN A GREEN JOB MEANS...

I see myself as a mentor to young entrepreneurs and as an advocate for the forest industry. I'm so positive about the careers and opportunities in this sector. I'm also always willing to help others start their own business. I provide information on financing, youth programs, Indigenous business channels, etc. As an Indigenous female businesswoman in a male-dominated industry, I feel it's my duty to carry the torch from time to time. That's why I like to shine a light on women and youth in this sector, and on the role and responsibility that Indigenous people have in forestry today.



High School Graduation

(2002)



Accounting Technician Program

Thompson Rivers
University
(2003)



Business Owner

Bar S Ventures
(2004)



SHELLEY'S CAREER TIP

"Young people should consider the forest sector. There are lots of good paying jobs. And a lot of people love the lifestyle."



Shelley is the main logging contractor for Stuwix Resources Joint Venture, an SFI-certified company.

Business Owner

SRS Trucking Ltd
(2009-Present)



LENNARD JOE, RPF

Scw'exmx, Shackan Indian Band

GENERAL MANAGER

Stuwix Resources Joint Venture

Stuwix Resources is a fibre management and marketing company. It is owned jointly by eight First Nations Bands in British Columbia. Stuwix Resources, an SFI-certified organization, incorporates First Nation cultural and traditional practices throughout all stages of its sustainable forest management.



Stuwix Resources is an SFI-certified organization



MY LOVE OF NATURE COMES FROM...

I grew up as a cowboy on a ranch in B.C. I was in the bush all the time and I've always been comfortable outside. My love for nature grew from there.

I BECAME A FORESTER BECAUSE...

I come from a logging family, but I wasn't thinking about being a forester growing up. Many of my family members attended residential schools. Even by the 1980s, none had gone to university. I was more interested in hockey but knew I was better off in school.

I first wanted to be a park ranger but realized there were no parks near my community. My next choice was wildlife biology. While earning a wildland recreation diploma from Selkirk College, I had a summer job doing stream research, working with biologists. When I saw what they were doing, I wanted to do it too. They guided me to the University of British Columbia, where I completed a degree in natural resources conservation. A forestry job came up, and I realized I could use my conservation background to make a positive impact in forestry. I've been a registered professional forester (RPF) ever since.

BEING INDIGENOUS IN A GREEN JOB MEANS...

I noticed how many logging trucks were going through the community and asked myself, "Why are none of them ours?" The community came together, and we built Stuwix Resources. Now, First Nations individuals, companies, and communities are participating in and helping care for all that the forest has to offer. First Nations are no longer just a stakeholder. Now we have opportunities to start influencing change at the larger level and creating an environment in which others can grow and succeed.



High School Graduation

(1987)



Forest Tech Year 1

NVIT
(1988)



College Prep, Forestry

Caribou College
(1989)



Wildland Recreation

Selkirk College
(1990-1992)



Natural Resources Conservation

UBC
(1993-1997)



Seasonal Forester

Canfor
Fort St. John
(1993)



Seasonal Forester

Weyerhaeuser
(1995-1999)



Owner

Grizzly-Man Resource
Management
(1999-2011)



General Manager

Stuwix Resources Joint
Venture
(2011-Present)



LENNARD'S CAREER TIP

"Young people will always see things that don't exist yet. Sometimes you just need to create your own vehicle to do the things you feel need to get done."



Lennard also sits on the Board of Directors for both PLT Canada and SFI as a representative of Scw'exmx Tribal Council—providing important insight and guidance on Indigenous relations and outreach.



AMY ROSE

Saulteaux-Ojibway, Cote First Nation

INDIGENOUS RELATIONSHIPS MANAGER

Canfor

Amy helps Canfor build positive relationships with Indigenous communities. Canfor is one of the world's largest producers of sustainable lumber, pulp, and paper. Its operations overlap significantly with traditional Indigenous territories. As an SFI-certified company, Canfor recognizes and respects the rights of Indigenous Peoples within its sustainable forest management practices.



Canfor is an SFI-certified organization and a PLT Canada Green Jobs employer



MY LOVE OF NATURE COMES FROM...

My family is from the Cote First Nation in Saskatchewan. It's about 270 kilometres northeast of Regina. My mother and father inspired me to love the outdoors. We were always active: camping, hiking, and exploring. My mother also helped show me how we are tied to nature. We would forage for medicinal herbs together. My mother taught me that all things in nature have the power to heal you.

I CHOSE TO WORK IN INDIGENOUS RELATIONS BECAUSE...

Working for a renewable natural resource company aligns with my Indigenous values. I'm passionate about working with Indigenous communities. I want to help increase their role in the forest economy.

BEING INDIGENOUS IN A GREEN JOB MEANS...

Indigenous Peoples have always had rights and title to the land. It's important to acknowledge that, as many forestry operations are in the same remote places as Indigenous communities. There is a huge opportunity for industry and Indigenous communities to work together. We can enhance our relationships. But there is no "one size fits all" when it comes to working with Indigenous Peoples. They all have different needs. We need to understand those needs and inspire Indigenous people to join our sector. Spending time in communities is key.



High School Graduation

(2000)

Chemainus Native College

Business Administration Certificate
(2000-2001)

North Island College

Bachelor of Arts
(2001-2003)

Policy Analyst

Aboriginal Youth Internship
(2009-2010)

Project Officer

New Relationship Trust
(2010-2011)

Advancement Coordinator

New Relationship Trust
(2011-2012)

Aboriginal Liaison

Trans Canada (LNG Project)
(2012-2014)

Indigenous Relationships Manager

Canfor
(2012-Present)

AMY'S CAREER TIP

"Canfor and many other forestry companies have programs to help students. Stay in school and take advantage!"



Amy believes in the importance of taking time to build face-to-face relationships.



MICHELLE BOTHAM

Anishinaabe, Lac Seul First Nation

FORESTRY TECHNICIAN

Hme Enterprises

Michelle works to ensure that forests are fully regenerated after sustainable harvesting. Every day on the job is something different. On a given day, Michelle might be supervising tree planting, overseeing site preparation, collecting field data or supervising summer students. She also ensures compliance with forestry regulations. Hme Enterprises works in partnership with Ondaadiziwin Forest Management, which sustainably manages local forests for the benefit of seven generations to come.



Ondaadiziwin Forest Management is an SFI-certified organization and Hme Enterprises is a PLT Canada Green Jobs employer



MY LOVE OF NATURE COMES FROM...

As long as I can remember, my family has been fishing, camping, hunting, swimming, hiking—I could list so much more. From a young age, we would walk in the bush and partridge hunt with our slingshots. I still like to go hunting with family. I'm involved with hauling out the animals and preparing them for eating. It's a family activity.

I BECAME A FORESTRY TECHNICIAN BECAUSE...

I was 42 years old, between jobs and at a turning point in my life. My aunt was working for Obishikokaang Resources Corporation, which manages the Lac Seul Forest about 400 kilometres northwest of Thunder Bay, Ontario. My aunt told me about a summer student position. After the summer, I was asked to stay on full time.

BEING INDIGENOUS IN A GREEN JOB MEANS...

I think it's important for First Nations people to get involved in forestry for our children and for our future. In my compliance role, I help guarantee our traditional values are being considered in forest management. As First Nations, we can take a leadership role and help make a positive change. Now we see a lot more involvement of First Nations in sustainable forestry. We see the green career options. I think this trend will continue and forestry will only become an even more attractive option for young people.



Job Readiness Training

AKG Training Centre
(1990-1991)

Business Management

CDI College
(2004-2006)

Youth Coordinator, Business Leaders of Tomorrow

Ontario Native Women's Association
(2001-2002)

Early Childhood Educator

Waninawakang
Aboriginal Head Start
(2008-2010)

MICHELLE'S CAREER TIP

"Sometimes life takes you down a path you never expected. Take the knowledge and experience you gain along the way with you into your future roles."

Silviculture Summer Student

Hme Enterprises
(2015)

Upgrading (GED Studies)

Seven Generations
Education Institute
(2016-Present)



Forestry Technician

Hme Enterprises
(2019-Present)

After her summer student position, Michelle was asked to stay on full-time.



DEVIN HURCOMBE

Anishinaabe, Biigtigong Nishnaabeg

POWER ENGINEER

Resolute Forest Products



Devin does preventative maintenance and safety inspections on a cogeneration plant at Resolute Forest Product's mill in Thunder Bay, Ontario. The cogeneration plant uses bark and other leftover wood residues to produce heat and power. This helps the company reduce fossil fuel consumption and greenhouse gas emissions. Resolute also supports important research into how sustainably managed local forests can be a part of the global answer to climate change.



Resolute Forest Products is an SFI-certified organization and a PLT Canada Green Jobs employer

MY LOVE OF NATURE COMES FROM...

From an early age, I went with my family to a cabin on Lac Des Mille Lacs. We would go every weekend, and I fell in love with it. Being outdoors and fishing is a blast. I'm still an avid angler.

I BECAME A POWER ENGINEER BECAUSE...

I was working as a carpenter a few years ago, when the work started to dry up. I decided to go back to school and pursue a second career. I'm a hands-on learner who likes mechanics, math, and science. Power engineering caught my eye. I completed a two-year program at Confederation College. Now I'm studying for my second-class certification and I hope to study to one day become a chief engineer. Once you have a second-class certification, employers seek you out.

BEING INDIGENOUS IN A GREEN JOB MEANS...

My work in cogeneration ties to my heritage and teachings about being one with nature. Cogeneration is about using what you have and not wasting things. Whether it's harvesting a deer or a tree, you're not wasting things. Resolute is using the leftovers like bark, chips and sawdust to create power after making lumber or paper products. Nothing is wasted.



**High School
Graduation**
(2010)



**Construction
Techniques**

Confederation College
(2011-2012)



Carpenter

Various companies
(2012-2016)



DEVIN'S CAREER TIP

"Experience and education are key. The more skills and certifications you earn, the more in-demand you will be."

**Third Class
Engineering
Certification**

Confederation College
(2016-2018)



**Second Class
Engineering
Certification**

Confederation College
(2020-present)



Power Engineer

Resolute Forest
Products
(2020-Present)

Devin aspires to become a chief engineer someday.



MARIE-JOSÉE PICARD

Innu, Pessamit

ENVIRONMENTAL TECHNICIAN

Nutshimit-Nippour Consultants

Nutshimit-Nippour Consulting provides a range of environmental services, including in forest sciences. Its team of forest engineers and technicians plans, manages, and monitors forest resources.



MY LOVE OF NATURE COMES FROM...

My family spent many weekends at our cottage. My parents would place me in an Innu hammock, and they would rock me gently while they went about their work. I remember looking at the sky through the tree branches, and I remember how happy I was. I would fall asleep right away, smiling. I also really enjoyed playing in the mud and the leaves. Come to think of it, I was probably creating my own science experiments.

I BECAME AN ENVIRONMENTAL TECHNICIAN BECAUSE...

I get to do office work and field work, the best of both worlds. I'm interested in many aspects of the environment. I'm currently working on some Indigenous consultation projects. I'm also busy validating field data. In the summer, I'll be in the field collecting data and doing environmental monitoring.

Our communities are going to be more and more affected by climate change. Young people have to become aware of these issues early on, so they can maybe choose a green career path. In my community, I don't think many of them are going in that direction. I hope that situation evolves. It's important for the forest and conservation sector to support those who want to pursue green careers. Project Learning Tree Canada and SFI are setting a great example in that regard. It's also important for us to continue to develop our own expertise.

BEING INDIGENOUS IN A GREEN JOB MEANS...

I am very proud to be an Indigenous woman working for the environment. I'm happy to say I've found a workplace where I belong. For me, it means not being afraid to take your rightful place. It's important for us to be present and active in different fields of work. Also, there is a lot of work to be done to increase environmental awareness in our communities and everywhere in the world.



High School Graduation

(2008)

Environmental Research and Monitoring AEC

Ste-Foy CEGEP
(2012-2013)

Forest Inventory Intern

Consultants
forestiers DGR inc.
(2013)

Environmental Pilot Project

Wendake CDFM
(2010-2011)

Environmental Technician

Huron-Wendat
Nation Council
(2014)

Environmental Officer

Pessamit Innu
Band Council
(2017-2019)

Workplace Hazardous Materials Information System

Mamuitun Tribal Council
(2018)

Hazardous Substances Classification, Storage and Handling Course

Laurentide Corporation
(2018)

Technician

Englobe Corp.
(2019)

Environmental Technician

Nutshimit Nippour
Consultants
(2019-Present)

MARIE-JOSÉE'S CAREER TIP

"It's really important to listen to your heart and to be curious and attentive to the world around you."



Marie-Josée believes young people should learn about climate change issues early on so that they can consider a green career path.



DEAN ASSINEWE, RPF

Sagamok Anishnawbek

INDUSTRY ADVISOR

FPIInnovations

Dean works with the forest and wood products industry, as well as Indigenous communities, in pursuing forest management and manufacturing opportunities. He is also a mentor with PLT Canada's #MyGreenMentor program. FPIInnovations is a private not-for-profit R&D organization. It specializes in solutions that help grow the Canadian forest sector and its affiliated industries to enhance their global competitiveness.



FPIInnovations is a PLT Canada Green Jobs employer



MY LOVE OF NATURE COMES FROM...

My father was a big influence. He was a trapper in his youth. We spoke quite a bit about his experience and his spiritual relationship with the land. In our culture, we're all connected. The animals are our relations. It's important we have a fundamental respect for them.

I CHOSE A CAREER IN FORESTRY BECAUSE...

Fresh out of high school, I was working in Toronto with a good job at a pharmaceutical company. But I would find myself thinking how much I wanted to go home for a vacation and be outdoors. I also thought about how I grew up and my time in Ontario's Junior Ranger Program, a program for youth to gain experience in the natural resources sector. It was a huge milestone in my life. I decided to reconnect with the natural resources sector. I first earned a Forest Technician diploma at Sault College and then an Honours Bachelor of Science in Forestry from Lakehead University. I'm also a Registered Professional Forester (RPF).

BEING INDIGENOUS IN A GREEN JOB MEANS...

If First Nations can help take a lead in how development happens, Canada and the rest of the world will be better for it. We have to draw careful connections between our environment, our culture and traditions, and how we develop our natural resources. On an individual basis, I can mentor youth who are trying to decide what they want to become. Growing up, we didn't have many mentors like First Nation foresters. Today, there are more and more!



**High School
Graduation**

(1998)

**Business
Administration**

Algonquin College
(1990)

**Forestry
Technician**

Sault College
(1996-1998)

**BSc Forestry
(Honours)**

Lakehead
University
(1998-2001)

**Chemical
Compounder**

Block Drug Company
(1988-1989)

**Federal
Government
Positions**

Federal
Government
(1990-1996)

Forestry Intern

MNRF
(2001-2002)

**Operations Forester /
Forestry Program
Manager**

North Shore
Tribal Council
(2002-2007)

**Minerals
Development
Coordinator /
Forester**

Sagamok
Anishnawbek
(2007-2010)

**Consultant -
Aboriginal EA**

Xeneca Power
(2010-2013)

**VP Indigenous
Relations**

Helios
(2014-2015)

**SR Manager First
Nation Métis
Relations**

Hydro One
(2015-2016)

**Forestry Consultant -
FSC Auditor**

Self Employed
(2016-2017)

Industry Advisor

FPInnovations
(2017-Present)

DEAN'S CAREER TIP

"Forestry has become very much about technology and innovation. But there is still something for everyone. A science degree is important. But a technical degree will still open doors."



Dean believes that First Nations can help make a better world if they take a lead in how development happens.



EVAN SIMON

Mi'kmaq, Unama'ki

LAND GUARDIAN PROJECT INTERN

Unama'ki Institute of Natural Resources

Evan's main role is to support a draft moose management plan in the Cape Breton Highlands and assist with community education and outreach programs. Evan also incorporates Traditional Ecological Knowledge (TEK) into research and stewardship activities. Evan works with Clifford Paul, see his profile on page 28.



The Unama'ki Institute of Natural Resources is a PLT Canada Green Jobs employer

MY LOVE OF NATURE COMES FROM...

When I step into the bush, I still get that exact same feeling from when I was young. Feels like I'm being greeted by an old friend. I have strong memories of my father teaching me what he learned during his childhood. My grandmother would cook for us in the woods. The taste of food is better outside.

I CHOSE A CAREER IN SUSTAINABLE RESOURCE MANAGEMENT BECAUSE...

I always knew I wanted to follow a green career pathway. My dad talked to me about working as a game warden. I would see game wardens while I was fishing with my dad or hunting with my mentors, Danny Paul and Clifford Paul. I thought they looked so cool. My dad always talked about protecting things. I was taught to be a protector and to stand up for things that I love, like the land we come from.

BEING INDIGENOUS IN A GREEN JOB MEANS...

Being Indigenous means I can weave traditional knowledge with the knowledge I learned in school. We call this "Two-Eyed Seeing." One eye sees with the strengths of Indigenous ways of knowing, and the other eye sees with the strengths of Western ways of knowing. I think Traditional Knowledge and approaches like Two-Eyed Seeing will become a bigger part of the green sector. Learning from my family and Elders means I have a long-term view of conservation. We are always thinking seven generations behind us and looking seven generations ahead.



Summer Student

*Membertou
Heritage Park
(2012-2013)*

High School Graduation

(2013)

Caterer

*Membertou Trade and
Convention Centre
(2011-2016)*

Private Guard

*Mb2 Universal
Security
(2014-2020)*

Wildlife Conservation Technology

*Holland College
(2016-2019)*

EVAN'S CAREER TIP

"A lot of people feel that their path is set for one specific thing. But get your education and you will have a wider range of possibilities to choose from."

Summer student

*Membertou Natural
Resources
(2017)*

Conservation Enforcement

*Atlantic Police Academy
Holland College
(2018)*

Cadet Conservation Officer

*Department of Lands
and Forestry,
Nova Scotia
(2018)*

Land Guardian Project Intern

*Unama'ki Institute of
Natural Resources
(2020)*



As an Indigenous person, Evan can weave traditional knowledge with the knowledge he learned in school. It is called "Two-Eyed Seeing."



CLIFFORD PAUL

Mi'kmaq, Unama'ki

MOOSE MANAGEMENT COORDINATOR

Unama'ki Institute of Natural Resources

Clifford is engaging Mi'kmaq communities in drafting a moose management plan in the Cape Breton Highlands. Clifford works with Evan Simon, whom we've also profiled on page 26.



The Unama'ki Institute of Natural Resources is a PLT Canada Green Jobs employer

MY LOVE OF NATURE COMES FROM...

I didn't realize I was building Traditional Knowledge when I was growing up in Cape Breton. I was doing what I enjoyed. We did a lot of hunting and fishing. I spent a lot of time on the land. Living as a Mi'kmaq person, I learned using my eyes and hands. This gave me a strong start in learning science.

I CHOSE A CAREER IN SUSTAINABLE RESOURCE MANAGEMENT BECAUSE...

I was put on a Parks Canada committee about moose while I was a student and working for the Union of Nova Scotia Indians. The role applied the best of my Traditional Knowledge and science education. I knew this was my calling. Then I got hired with the Unama'ki Institute.

BEING INDIGENOUS IN A GREEN JOB MEANS...

In these kinds of jobs, we're reclaiming our role as stewards of the natural world. Mi'kmaq have a long history of sustainable resource management. Today, we work with other jurisdictions that have similar goals. All of us have the capacity to build a strong management model for natural resources.

Before Europeans arrived, we managed our natural environment perfectly. We synched our cycles and practices to nature. Today, Unama'ki Institute staff are combining traditional knowledge with western science through the practice of Two-Eyed Seeing. We're thinking seven generations behind us and looking seven generations ahead.



High School Graduation

*Sydney Academy
(1981)*

Journalist

*Mi'kmaq News
(1983-1992)*

Unama'ki Tribal Police

*Criminal Records
Manager/Dispatcher
(1995-2000)*

Mi'kmaq Science Advantage Program

*Cape Breton University
(1999-2000)*

CLIFFORD'S CAREER TIP

"Build your traditional knowledge alongside your formal education. Both have equal strengths and merits."

Communications Officer & Sydney Tar Ponds Coke Ovens Cleanup

*Union of Nova Scotia Indians
(2003-2005)*

B.A in Community Studies

*Cape Breton University
(2003)*

Moose Management Coordinator

*Unama'ki Institute of Natural Resources
(2006-Present)*



Clifford grew up spending a lot of time on the land. He learned to use his eyes and hands, which gave him a strong start in learning science.



LEESEE PAPATSIE

Inuit, Nunavut

MANAGER, HERITAGE APPRECIATION

Nunavut Parks

Leese works with Inuit communities and Elders to promote protection and awareness of territorial parks. Nunavut Parks is a member of the Canadian Parks Council, which works to promote excellence in parks planning and create meaningful Green Jobs opportunities for young people across the country.



Nunavut Parks is a PLT Canada Green Jobs employer



MY LOVE OF NATURE COMES FROM...

I grew up on the land following our traditions. We would snowmobile over the ice to our hunting camp and then take a boat back weeks later after the ice broke up. One spring, the ice took longer to break up. Usually we could come back in July but that year we couldn't get back until August. We lived off the land, eating ducks and duck eggs. I still love being outdoors. Today, I'm one of the few women hunters. I still hunt with my brothers.

I CHOSE A GREEN CAREER BECAUSE...

When I was growing up, our family was one of the last families to go out on the land consistently. I always knew I wanted an outdoor job. I'm also bringing our language into the workplace and parks. The oral histories of Inuit are helping pass on our traditions and encourage more people to get out on the land.

BEING INDIGENOUS IN A GREEN JOB MEANS...

Being an Inuk helps me to understand what it's like for our youth when they start on their career path. Many Inuit face challenges with job interviews because English is their second language. Even if our youth know the right answer, they may have trouble expressing themselves. I'm helping to change the way Nunavut Parks does interviews so that more Inuit youth are able to succeed.



High School GED Program

(1998)



Environment Technology Program (ETP)

Nunavut Arctic College
(1998-2000)

Bachelor of Technology

Memorial University
Online
(1998-2000)



Fisheries Management Technician

Fisheries and
Oceans Canada
(2000-2002)



Business Owner

Fishing Business
(2002-2006)



Search Masters Course

Civil Air Search and
Rescue Association
(2004)



Intern Instructor, ETP

Nunavut Arctic College
(2004-2007)



Outreach and Education Specialist

Parks Canada
(2007-2014)



Manager, Heritage Appreciation

Nunavut Parks
(2014-Present)



LEESEE'S CAREER TIP

"Stay in school—this will open green job opportunities. Green jobs are a way to continue our Inuit traditions."



Leesee is helping to change the way Nunavut Parks does interviews so that Inuit youth are more able to succeed.



OUTLAND YOUTH EMPLOYMENT PROGRAM

The Outland Youth Employment Program (OYEP) is a six-week land-based work experience that provides education and training for Indigenous youth aged 16 to 22. OYEP camps replicate work environments in the natural resources sector so that participants can develop essential life and employment skills. OYEP collaborates with local Indigenous communities and Elders to ensure youth feel culturally and spiritually supported at all times. Since 2018, PLT Canada and SFI networks have contributed approximately \$1.5 million to OYEP. This support has enabled OYEP to grow from two camps in 2017, to six camps across four provinces in 2019.

TRANSFORMING LIVES THROUGH GREEN JOBS EMPLOYMENT

OYEP MILESTONES SINCE 2000:

- 583 graduates
- 6 camps in 4 provinces
- 103 First Nations represented
- 1,251 summer jobs
- 743 high school co-op credits earned
- 531K hours worked
- 2.1M trees planted

TRAINING OYEP YOUTH RECEIVE:

- First aid
- SP102 wildfire training
- Chainsaw safety
- Beginner driver's licence
- ORCKA water safety
- Bear Aware
- WHMIS

THE FUTURE IS BRIGHT!

In 2018, SFI, PLT Canada, and Outland, a division of Dexterra, signed a memorandum of understanding on Indigenous youth opportunities. Through the MOU, the three organizations have committed to working in partnership to grow the Outland Youth Employment Program and amplify its transformative education and career outcomes for Indigenous youth across Canada. The MOU has a goal to grow OYEP to 14 camps, with 350 Indigenous youth participants annually, by 2022. Dexterra is a facilities and operations manager and a forestry services company.

PLT Canada wishes to thank OYEP founder Dave Bradley and the entire OYEP team for their commitment to helping Indigenous youth discover career paths in the forest and natural resources sector.



WHAT OYEP YOUTH ARE SAYING

“I really want to go back next year so I can learn more about forestry work and meet more amazing people.”

—**Caden Spence**, Nisichawayasihk Cree Nation

“What I like about OYEP is the experience of working with the companies and with my fellow Rangers who are now friends. I got into Mount Royal University and am excited to find a job.”

—**Soul One Spot Rollinmud**,
T’suutina Nation

“OYEP has helped me build more confidence in myself and now I believe that I can do anything I put my mind to. My life would be totally different if I never applied for OYEP, and I’m so glad I did because it has changed my life.”

—**Sarah Dixon**,
Esk’etemc First Nation

WHAT GREEN CAREERS ARE OYEP GRADS DOING TODAY?

- Park Biologist Assistant
- Aircraft Maintenance Technician
- Environment Assessment Technician
- Wildfire Fighter
- Employment Counsellor
- Tree Planter
- Fur Trapper
- Commercial Fishing
- Human Resources, Recruiting
- Haul Truck Operator
- Heavy Equipment Mechanic
- Lumber Grader
- Carpentry
- Harvesting Equipment Operator
- Heavy Equipment Operator
- Backcountry Park Ranger
- Silviculture Technician
- First Nation Band Administration
- Forestry Camp Cook
- Road Construction and Maintenance
- Land Use Planning
- Sawmill Operator
- GIS Technician



Left: Abbey Antsanen, Northlands Denesuline First Nation, OYEP Manitoba.

Right: Tyson Beaulieu, West Moberly First Nation, OYEP West British Columbia.



More info: oyep.ca

CONSULTATION COORDINATOR

Consultation coordinators advocate for Indigenous communities. They are a community's main point of contact for outside groups. They review reports and help to negotiate agreements, such as when working with forestry companies to develop forest management plans and business opportunities. Consultation coordinators ensure Indigenous rights are respected. They also help to ensure that Traditional Indigenous Knowledge is properly collected and used. Consultation coordinators also organize opportunities for others to engage with the community.



SIMILAR POSITIONS

- Referrals Coordinator
- Referrals Manager



WORKS WITH

- Indigenous Relations Specialists
- Foresters
- Natural Resources Technicians
- GIS Technicians
- Elders and Community Leaders

IS IT RIGHT FOR ME?

Consultation coordinators are sensitive when dealing with people. They're comfortable in both corporate and Indigenous environments. Their people skills are useful in setting up and managing meetings.

SALARY

Salaries vary based on location and years of experience. A typical starting salary is around \$35,000. With many years of experience and high-level education (such as a PhD), consultation coordinators can make up to \$85,000.

**Not a complete list of resources.*

EDUCATION

Consultation coordinators have a variety of backgrounds. For example, many have forestry, environmental science, law, or community development experience. Knowledge of Indigenous cultures and community dynamics is useful. This can be learned through formal education or lived experience. Extra courses in conflict resolution, negotiation, communication and leadership are all helpful. In high school, study a wide range of subjects and focus on developing communication skills.

COLLEGE*

- Northern Alberta Institute of Technology, AB:
[Forest Technology](#)
- Confederation College, ON:
[Forestry Technician:](#)
[Ecosystem Management](#)

UNIVERSITY*

- Vancouver Island University, BC:
[Indigenous/Xwulmuxw Studies](#)
- University of Winnipeg, MB:
[Environmental Sciences](#)
- Algoma University, ON:
[Community Development](#)



Photo: Shared Value Solutions

More info: [PLTCanda.org/Consultation-Coordinator](https://pltcanda.org/consultation-coordinator)

ENVIRONMENTAL EDUCATOR

Environmental educators love helping people understand nature and their relationship to it. They speak and write well and are good at getting their messages across. They provide facts, answer questions, and lead interactive activities, like games, field trips, hikes, and workshops. Environmental educators often make presentations outdoors. Forests and camps are their classrooms. They also spend time doing research to make sure their content is factual and relevant.



SIMILAR POSITIONS

- Ecotourism Operator
- Environmental Communications Officer
- Heritage Interpreter
- Park Interpreter

IS IT RIGHT FOR ME?

Environmental educators work with people of all ages and education levels. This means they often have to adapt to new situations and scenarios. Flexibility and adaptability are important skills, as are friendliness and an ability to communicate well.



GROWING FUTURE FOREST AND CONSERVATION LEADERS



SALARY

Salaries are consistent throughout an environmental educator's career, at between \$38,000 and \$47,000 per year.

EDUCATION

Environmental educators must have a degree in education, environmental science, environmental studies, or a related field. In high school, take science, biology, social sciences, math, and geography. **Not a complete list of resources.*

COLLEGE*

- College of the Rockies, BC:
[Environmental Studies Certificate](#)
- Red River College, MB:
[Applied Environmental Studies](#)
- Fleming College, ON:
[Environmental Visual Communication](#)
- Fleming College, ON:
[Outdoor and Adventure Education](#)
- Sault College, ON:
[Adventure Recreation and Parks Technician](#)

UNIVERSITY*

- University of Victoria, BC:
[Environmental Studies Minor or Double Major](#)
- First Nations University of Canada, SK:
[Indigenous Knowledge & Science](#)
- Lakehead University, ON:
[Environmental Studies](#)
- Dalhousie University, NS:
[Environmental Science Program](#)



LEARNING IS IN OUR NATURE

More info: PLTCanada.org/Environmental-Educator

FORESTER

Every day, foresters across Canada lace up their boots, put on their high-visibility vests; and venture out into the wild. They gather information, predict and identify problems, and come up with solutions to help manage forests sustainably. Some may even consider them caretakers of the forest. They balance ecological, social, and economic values. They also create detailed plans to harvest, regenerate, and monitor the health of forests. In this way, they ensure that important wildlife habitats and cultural areas are protected.



SIMILAR POSITIONS

- Silviculture Technician
- Forestry Technician
- Arborist



WORKS WITH

- Biologists
- Hydrologists
- Engineers
- Indigenous communities

IS IT RIGHT FOR ME?

Since foresters work in the field, in the office, or in the lab, they have diverse skills. These include writing, technology, and plant and animal identification. Foresters should also be good communicators, as they must set up and moderate meetings and talk about their plans to many different people, including Indigenous communities and government representatives. You can find foresters in a variety of places doing many kinds of things:

- Creating forest management plans for a forestry company
- Developing policy for the government
- Helping landowners with property management plans
- Contributing to education, conservation, and research at a non-profit
- Inspiring the next generation of forest and conservation leaders as an academic
- and much more!



SALARY

Salaries vary depending on location and experience. They begin at around \$45,000 and go up to around \$92,000 for experienced foresters. The average salary in Canada is about \$63,000.

EDUCATION

In high school, take science, biology, social science, and math—all courses that provide important transferable skills for a forester.

A bachelor's degree in forestry or science is a good start. You can always transfer or upgrade your degree with one from an accredited forestry program. Most positions will require you to be a Registered Professional Forester (RPF). This designation means you adhere to a strict code of ethics for forest health and sustainability. You can apply for this designation once you've completed your degree. **Not a complete list of resources.*

The Forest Professional Regulators of Canada provides a list of accredited programs on its website:

www.fprc-orfpc.ca/accreditation

UNIVERSITY*

- University of British Columbia, BC:
[Bachelor of Science in Forestry: The Forest Resources Management Major](#)
- University of Alberta, AB:
[Bachelor of Science in Forestry: Forestry Major](#)
- Université Laval, QC:
[Baccalauréat en aménagement et environnement forestiers](#)
- Lakehead University, ON:
[Honours Bachelor of Science in Forestry](#)
- University of Toronto, ON:
[Master of Forest Conservation](#)
- University of New Brunswick, NB:
[Bachelor of Science in Forestry - Forestry Program](#)



More info: PLTCanada.org/Forester

FORESTRY TECHNICIAN

Forestry technicians gather information about forests and monitor how forest resources are used. They also do many other things. At any given time, they might be working on a conservation project, supervising a tree nursery, or helping to coordinate fire suppression efforts. A forestry technician is part of a forest management team. They work under the direction of a forester (see p. 38).



SIMILAR POSITIONS

- Silviculture Technician



WORKS WITH

- Foresters
- Biologists
- Contractors

IS IT RIGHT FOR ME?

Forestry technicians are often one of several people on a project, so teamwork and planning skills are important. They need to know basic forest management techniques, like remediation and afforestation. Employers often want them to have geographic information system (GIS) experience and knowledge of related tools and database programs. Forestry technicians use tools like prisms, clinometers, and calipers. They also usually need a valid driver's licence.

SALARY

The average salary for a forestry technician varies by region, from \$45,000 to \$75,000 annually.



EDUCATION

Most positions require at least a two-year college diploma. In high school, take biology, math, and science. **Not a complete list of resources.*

COLLEGE*

- Vancouver Island University, BC:
[Forest Resources Technician Diploma Program](#)
- College of New Caledonia, BC:
[Natural Resources and Forest Technology](#)
- Selkirk College, BC:
[Forest Technology](#)
- Nicola Valley Institute of Technology, BC:
[Environmental Resources Technology Diploma](#)
- Northern Alberta Institute of Technology, AB:
[Forest Technology](#)
- Fleming College, ON:
[Forestry Technician](#)
- Sault College, ON:
[Forestry Technician Program – Conservation](#)
- La Cité, ON:
[Techniques en Environnement Forestier](#)
- College of the North Atlantic, NB:
[Forest Resources Technician](#)
- Maritime College of Forest Technology, NB:
[Forest Technology Program](#)
- Nova Scotia Community College, NS:
[Natural Resources Environmental Technology](#)

UNIVERSITY*

- University of Northern BC, BC:
[Environmental Science](#)
- University of Northern BC, BC:
[Forest Ecology and Management](#)
- Vancouver Island University, BC:
[Forest Resources Technology](#)

OTHER*

- Government of British Columbia, BC:
[Forest Technologist Entry Level Training Program](#)
- Workplace Safety North, ON:
[Introduction to Professional Chainsaw Operation](#)
- Canadian Institute of Forestry, ON:
[Ontario Silvicultural Tree Marking](#)



More info: PLTCanada.org/Forestry-Technician

GIS TECHNICIAN

A geographic information system (GIS) is a set of digital mapping tools that helps to organize, communicate, and understand the science of our world. GIS technicians use scientific research, spatial data, and expert opinions to help with plans and management strategies. They also analyze patterns and trends, map natural disasters, track wildlife, measure logging rates, and much more. Typical duties include preparing maps and reports and compiling a wide variety of data to help monitor the environment.



SIMILAR POSITIONS

- Cartographer
- Geographer
- Remote Sensing Technician
- Environmental Scientist
- Landscape Planner



WORKS WITH

- Hydrologists
- Foresters
- Biologists
- Remote Sensing Technicians
- Forestry Technicians

IS IT RIGHT FOR ME?

While some GIS technicians do field work, they mostly work at a desk. Computer skills, statistical and analytical skills, and problem-solving skills are very important. They are good at focusing on details when managing, analyzing, and mapping data. They can also see connections between spatial data and things that happen in the real world.

SALARY

Salaries vary by location and employer. Wages vary from \$21.40 to \$47.18 per hour, or \$41,730 to \$92,000 annually.



EDUCATION

GIS technicians usually have an undergraduate degree in geographic information systems, geomatics, geography, computer science, or environmental sciences. A one-year graduate certificate can help them get more work experience. A master's degree can provide more opportunities and a higher salary. This is especially true if the master's degree is focused on a specific GIS application. In high school, study geography, computer science, and physics.

**Not a complete list of resources.*

COLLEGE*

- British Columbia Institute of Technology, BC:
[Geomatics Engineering Technology](#)
- Northern Alberta Institute of Technology, AB:
[Geomatics Engineering Technology](#)
- Southern Alberta Institute of Technology, AB:
[GIS Data Management Certificate of Achievement](#)
- Algonquin College, ON:
[Geographic Information Systems](#)
- Nova Scotia Community College, NS:
[Geographic Information Systems Technician](#)

UNIVERSITY*

- Simon Fraser University, BC:
[Geographic Information Science](#)
- Université de Sherbrooke, QC:
[Baccalauréat en géomatique appliquée à l'environnement](#)
- University of Waterloo, ON:
[Geomatics](#)
- Trent University, ON:
[Emphasis in Geographic Information Systems](#)
- Dalhousie University, NS:
[Certificate in Geographic Information Science \(GIS\)](#)

VOLUNTEER OPPORTUNITIES AND WORKSHOPS*

[Go Geomatics Canada](#)

[Humanitarian Open Street Map](#)

[TeamMapStory](#)



GIS technician analyzing mapping data.

Photo: Ducks Unlimited Canada, a PLT Canada Green Jobs employer

More info: PLTCanada.org/GIS-Technician

HYDROLOGIST

Hydrologists understand how lakes, rivers, and watershed systems function. They analyze water levels and the rates, timing, and distribution of water flows. In forestry, they analyze how tree harvesting affects aquatic ecosystems, and they work with foresters and wildlife biologists on conservation efforts. Once they gather information in the forest, hydrologists head back to the lab where they analyze their data and report their findings.



SIMILAR POSITIONS

- Climatologist
- Environmental Geologist
- Oceanographer
- Hydrogeologist



WORKS WITH

- Foresters
- Biologists

IS IT RIGHT FOR ME?

Hydrologists have great research and analysis skills. They gather information and use critical thinking to identify and solve problems. They have strong communication skills and are comfortable working in and near bodies of water.

SALARY

Salaries vary based on location and years of experience, from \$40,000 to \$70,000 annually. An experienced hydrologist with a master's degree can earn \$75,000 to \$100,000.



EDUCATION

Hydrologists usually have a college diploma or a university degree. Relevant programs include freshwater science, environmental science or geoscience. A master's degree can provide more opportunities and a higher salary. In high school, study biology, statistics, social science, math and physics. **Not a complete list of resources.*

COLLEGE*

- Northern Alberta Institute of Technology, AB:
[Biological Sciences Technology Environmental Monitoring and Assessment](#)
- Sault College, ON:
[Natural Environment Technician Conservation and Management](#)
- Algonquin College, ON:
[Environmental Science](#)

UNIVERSITY*

- Thompson Rivers University, BC:
[Water and Wastewater Technology Diploma](#)
- University of British Columbia, Okanagan, BC:
[Freshwater Science](#)
- University of Alberta, AB:
[Environmental Earth Sciences](#)
- University of Saskatchewan, SK:
[Water Science](#)
- University of Waterloo, ON:
[Geography and Environmental Management](#)
- McMaster University, ON:
[Earth and Environmental Sciences](#)
- University of New Brunswick, NB:
[Environment and Natural Resources](#)



Hydrology research site at Utikuma Lake in Alberta.

Photo: Ducks Unlimited Canada, a PLT Canada Green Jobs employer

More info: PLTCanada.org/Hydrologist

INDIGENOUS RELATIONS SPECIALIST

An Indigenous relations specialist usually starts their career by being deeply rooted in an Indigenous community. This background gives them in-depth knowledge of Indigenous culture, community issues, and governance. They work to create positive relationships between Indigenous and non-Indigenous people.



SIMILAR POSITIONS

- Traditional Ecological Knowledge Advisor



WORKS WITH

- Consultation Coordinators
- Foresters
- Forest Technicians
- GIS Technicians

IS IT RIGHT FOR ME?

Indigenous relations specialists must be able to see things from other people's perspectives. They meet with communities to identify their needs and work toward solutions that benefit all. They do research, write reports, and prepare community engagement activities. They are patient in building relationships and trust with Indigenous people.



SALARY

Salaries depend on location and years of experience. Entry-level positions start at around \$49,000 and salaries can go up to \$128,000 with many years of experience. The average salary is around \$75,000.

EDUCATION

The road to working as an Indigenous relations specialist is different for everyone. Many have training in a related field, like forestry. In high school, study a wide range of subjects and focus on developing your communication skills. **Not a complete list of resources.*

COLLEGE*

- First Nations University of Canada, SK: [Certificate of Reconciliation Studies](#)
- Confederation College, ON: [Aboriginal Canadian Relations](#)
- Fleming College, ON: [Indigenous Perspectives Designation](#)

OTHER TRAINING*

- Indigenous Corporate Training Inc.: [Indigenous Awareness Training](#)

VOLUNTEERING*

- Reconciliation Canada: [Become a Volunteer](#)
- Canadian-Universities.net: [Volunteer for First Nation and Aboriginal People Organizations in Canada](#)



Photo: Shared Value Solutions

More info: PLTCanada.org/Indigenous-Relations-Specialist

MACHINE OPERATOR

Machine operators often specialize in working with mechanical or computer-operated equipment. They set up machines to start production, adjust settings, and feed in materials. Machine operators need to be detail-oriented and have good problem-solving skills. They are responsible for ensuring equipment is working properly.



SIMILAR POSITIONS

- Machinist
- Millwright
- Production Worker
- Assembler
- Construction Worker





IS IT RIGHT FOR ME?

A machine operator is good at using tools and following safety rules. Because most of their work happens in factories, machine operators wear safety equipment like hard hats, safety boots, and ear protection.

SALARY

Salaries vary depending on location and years of experience, from \$40,000 to \$50,000.

EDUCATION

A high school education can sometimes be enough. However, many employers prefer individuals with college training.

**Not a complete list of resources.*

COLLEGE*

- North Island College, BC: [Heavy Duty Apprenticeship Training](#)
- North Island College, BC: [Coastal Forestry Worker Certificate](#)
- Kwantlen Polytechnic University, BC: [Millwright/Industrial Mechanic](#)
- Portage College, AB: [Heavy Equipment Operator](#)
- Sault College, ON: [Pulp and Papermaking Operations](#)
- New Brunswick Community College, NB: [Heavy Equipment Service Technician](#)
- New Brunswick Community College, NB: [Mechanized Forest Equipment Operator](#)



*A machine operator with EACOM,
an SFI-certified organization.*

More info: PLTCanada.org/Machine-Operator

PARK RANGER

Park rangers are passionate about protecting the environment, wildlife, and park visitors. They patrol and enforce rules and regulations. Most park rangers work for federal, provincial, or territorial agencies.



SIMILAR POSITIONS

- Conservation/
Fisheries Officer
- Conservation Biologist
- Ecotourism Operator



DID YOU KNOW?

PLT Canada has supported over 700 park positions across Canada since 2018.

IS IT RIGHT FOR ME?

Park rangers love the outdoors. They also work indoors when preparing reports or doing other administrative tasks. They need good interpersonal and communication skills to keep park visitors safe. Park rangers are leaders who can take charge in emergencies.

SALARY

Salaries vary by province and territory as well as by years of experience. The average is \$40,000 to \$55,000.

EDUCATION

While some positions require only a high school diploma, most park ranger positions require an undergraduate degree or technical diploma in a field like conservation enforcement, natural resource management, outdoor education, or forestry. **Not a complete list of resources.*

RELATED WORK EXPERIENCE*

Related work experience for becoming a park-ranger includes:

- Park Operator
- Student Ranger
- Jr. Forest Ranger



COLLEGE*

- College of the North Atlantic, NL:
[Forest Resources Technician](#)
- College of the Rockies, BC:
[Recreation Management](#)
- Saskatchewan Polytechnic, SK:
[Integrated Resource Management](#)
- Sault College, ON:
[Natural Resource/Environmental Law](#)

VOLUNTEERING*

Volunteering is a great way to gain experience.

Parks Canada Agency:
[Volunteer Opportunities](#)
[BC Parks Volunteers](#)

OTHER TRAINING*

To become a park ranger, you may also need to take special training, like first aid or public safety training. You may also need a driver's licence and be physically fit.

- Red Cross: [First aid and CPR](#)
- Class 5 Driver's Licence (or equivalent)
- Wilderness First Aid
- Chain Saw Certification
- ATV Certification
- Pleasure Craft Operator Certificate
- Other Marine Certifications (SVOP, MED A3, and ROCM)
- [BCIT 1010-BC Parks Law and its Administration \(BC ONLY\)](#)
- Wildlife and Danger Tree Assessor Certification



Park rangers removing scotch broom (an invasive species) from Goldstream Park.

Photo: BC Parks, a PLT Canada Green Jobs employer.

More info: [PLTCanada.org/Park-Ranger](https://www.pltcanada.org/Park-Ranger)

REMOTE SENSING TECHNICIAN

Remote sensing technicians gather information about a place without needing to be there physically. To do this, they use aerial photos, satellite imagery, and geographic information systems (GIS). They usually collect, process, and interpret images to map and monitor the environment. But they are able to do a lot more. For example, they can develop software, map natural disasters, track landscape changes, detect ships, and model forest structures.



SIMILAR POSITIONS

- GIS Technician
- Cartographer
- Geographer
- Environmental Scientist
- Software Developer

IS IT RIGHT FOR ME?

While some remote sensing technicians do field work, they mostly work at a desk. Computer and problem-solving skills are very important. They are good at focusing on details when processing and maintaining data. They are also good at relating what happens in the real world to spatial information.

SALARY

Salaries vary by location and employer. Wages vary from \$17.50 to \$52.70 per hour, or \$34,000 to \$103,000 annually.

EDUCATION

Remote sensing technicians usually have an undergraduate degree in remote sensing, geographic information systems, geomatics, geography, computer science, or environmental sciences. A one-year post-graduate diploma can help to specialize in remote sensing. A master's degree can provide more opportunities and a higher salary. In high school, study geography, earth science, computer science, and physics.

**Not a complete list of resources.*

COLLEGE*

- British Columbia Institute of Technology, BC:
[Geomatics Engineering Technology](#)
- Northern Alberta Institute of Technology, AB:
[Geomatics Engineering Technology](#)
- Algonquin College, ON:
[Geographic Information Systems](#)
- Nova Scotia Community College, NS:
[Geographic Information Systems Technician](#)

UNIVERSITY*

- Simon Fraser University, BC:
[Geographic Information Science](#)
- Université de Sherbrooke, QC:
[Baccalauréat en géomatique appliquée à l'environnement](#)
- Trent University, ON:
[Emphasis in Geographical Information Systems](#)

POST-GRADUATE DIPLOMAS:

- Vancouver Island University, BC:
[Geographical Information Systems \(GIS\) Applications](#)
- Fleming College, ON:
[GIS - Applications Specialist](#)
- Nova Scotia Community College, NS:
[Remote Sensing](#)

VOLUNTEER OPPORTUNITIES AND WORKSHOPS*

[Canada Centre for Remote Sensing](#)

[Canadian GIS and Geospatial Resources](#)

[Canadian Remote Sensing Society](#)

[Go Geomatics Canada](#)



Remote sensing technicians use aerial photos, satellite imagery, and GIS to gather data about a place without needing to be there physically.

Photo: Ducks Unlimited Canada, a PLT Canada Green Jobs employer

More info: PLTCanada.org/Remote-Sensing-Technician

SILVICULTURE TECHNICIAN

Silviculture technicians work with foresters to manage forests sustainably. Before harvesting, they conduct site assessments and plan seeding requirements. They might also flag trees and boundaries, establish new logging roads, and calculate the yield of trees in a block. After harvesting, they begin the process of regenerating forests, such as supervising planting. As the forest matures, they help to decide how much space to give each young tree, how much to prune them, and how much to fertilize them. Silviculture technicians also support wildfire management plans and are on the scene when forest fires occur. They might also help to coordinate the work of other professionals, such as archeologists or biologists, when they conduct their own evaluations.



SIMILAR POSITIONS

- Forestry Technician
- Silviculture Technologist



WORKS WITH

- Foresters
- Biologists

IS IT RIGHT FOR ME?

If you enjoy being outdoors, being active, and helping forests, then this work could be right for you. Silviculture technicians need to be physically fit and comfortable using tools, machines and operating equipment. They work in all types of weather conditions. They also need management and people skills to lead tree planting crews and enforce reforestation rules. Communication skills also help when listening and responding to the public.



SALARY

Salaries vary based on location and years of experience. The average salary in Canada is \$52,000. The salary for an entry-level position starts at \$40,000, and an experienced silviculture technician can earn up to \$65,000.

EDUCATION

To work as a silviculture technician, you will at least need a college diploma. You will also require experience in the field, which many institutions in Canada offer as part of their programming. Eventually, it will help if you know about silviculture policies in your province. In high school, take classes in science, math (especially calculus), geography, and social sciences.

**Not a complete list of resources.*

COLLEGE*

- British Columbia Institute of Technology, BC:
[Forest and Natural Areas Management](#)
- Vancouver Island University, BC:
[Forest Resources Technology](#)
- Selkirk College, BC:
[Forest Technology](#)
- Nicola Valley Institute of Technology, BC:
[Environmental Resources Technology](#)
- College of New Caledonia, BC:
[Natural Resources and Forest Technology](#)
- Northern Alberta Institute of Technology, AB:
[Forest Technology](#)
- Algonquin College, ON:
[Forest Technician](#)
- Fleming College, ON:
[Forestry Technician](#)



More info: [PLTCanada.org/Silviculture-Technician](https://www.pltcanada.org/Silviculture-Technician)

WILDLIFE BIOLOGIST

Wildlife biologists love critters and creatures of all kinds. They play a crucial role in Canada's conservation efforts. Their research often leads them into the wilderness where they conduct wildlife surveys and habitat assessments, take notes, and run controlled tests. They analyze their findings and prepare reports. In the forestry sector, these reports help guide sustainable forest management decisions.



SIMILAR POSITIONS

- Ecologist
- Conservation Biologist
- Fisheries Technician
- Zoologist



IS IT RIGHT FOR ME?

If you love animals, science, and spending time outdoors, this could be a great career option for you. Wildlife biologists have strong research and analytical skills. Their jobs also require excellent communication skills to write reports, submit recommendations, and make presentations to industry and government.

SALARY

Salaries vary depending on location and years of experience. The average salary in Canada is \$71,000. Starting off, a wildlife biologist can earn \$45,000. They can earn up to \$85,000 with many years of experience.



EDUCATION

Wildlife biologists have a solid background in the applied and natural sciences. While the minimum education requirement is a bachelor's degree in either wildlife biology, ecology, or zoology, many wildlife biologists have a master's degree or even a PhD. In high school, take classes in biology, math (especially calculus), English and chemistry. **Not a complete list of resources.*

COLLEGE*

- Sault College, ON:
[Fish and Wildlife Conservation Technician](#)
- Maritime College of Forest Technology, NB:
[Fish and Wildlife Technology Program](#)

UNIVERSITY*

- University of British Columbia, BC:
[Biology](#)
- University of Northern British Columbia, BC:
[Wildlife and Fisheries](#)
- University of Alberta, AB:
[Wildlife and Rangeland Resources Management](#)
- McGill University, QC:
[Wildlife Biology Specialization](#)
- Laurentian University, ON:
[Ecology](#)
- Guelph University, ON:
[Wildlife Biology and Conservation](#)
- University of Toronto, ON:
[Biodiversity and Conservation Biology](#)
- University of New Brunswick, NB:
[Wildlife Conservation](#)
- University of Prince Edward Island, PE:
[Wildlife Conservation](#)



More info: PLTCanada.org/Wildlife-Biologist

PLT Canada believes in a society that values and benefits from sustainably managed forests and the great outdoors. We are committed to using the outdoors to engage youth in learning about the world around them—in rural, Indigenous and urban communities—and advancing environmental literacy, stewardship; and career pathways using trees and forests as windows on the world.

To learn more about our work with Indigenous communities, and to get involved, contact Paul Robitaille, Senior Manager, Indigenous and Youth Relations, at [**paul.robitalle@sfiprogram.org**](mailto:paul.robitalle@sfiprogram.org).

For more information about PLT Canada Green Jobs (#MyGreenJob) or Green Mentor (#MyGreenMentor) programs, or to access career development or environmental education resources, please visit [**pltcanada.org**](http://pltcanada.org).

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