Wilderness Totaal Programma

Appendix 1 Inhoud opleiding.

Standaards: Theoretisch kennis en praktische vaardigheden

Leerjaar 1

Didactics, teaching, public speaking, Leadership, Coaching & Training

Nature & Wildlife

- Het herkennen van 60% van alle Nederlandse broedvogels en wintergasten
- Het herkennen van 95% van alle Europese zoogdieren (exclusief vleermuizen, muizen, woelmuizen en spitsmuizen)
- Herkennen van tenminste 100 soorten Europese Flora
- Herkennen en het gebruik weten van minimaal 20 medicinale planten
- Herkennen van tenminste 20 eetbare planten
- Het herkennen van 80% van de vogels van het gebied rond Bialowieza
- Het herkennen van minimaal 30 verschillende vogels door middel van zang / roep
- Basis kennis Diersporen
- Instaat zijn tot het maken van een monitoringsproject ten aanzien van flora en/of fauna

Hike & Survival

- Use of Compass
- Gebruik van kompas
- Gebruik van kaarthoekmeter
- Gebruik van GPS
- Kennis hebben van de verschillende kaartschalen en hiermee kunnen werken
- Kennis van de verschillende GRID systemen
- Route-finding
- Gebruik van mes, bijl en zaag
- Vuur maken met lucifers en aansteker
- Vuur maken met vuurslag
- Vuur maken met een striker / fire rod / magnesium stick
- Vuur maken, gebruik makend van alles wat je bij je hebt tijdens een hike
- Vuur maken, gebruik makend van alles wat je in de natuur kan vinden
- Vuur maken van één houtblok
- Vuur maken met 5 verschillende soorten natuurlijk tondel
- Katoen met vaseline als tondel
- Featherstick
- Long fire
- Siberian fire
- Signal fire
- Emergency shelter
- Verschillende manieren om een tarp op te zetten
- Lean-to
- Quinzee

- Crafting Try stick
- Crafting kook systemen
- Figure 4 deathfall
- Lifting pole hare snare
- Vishaken maken van botten en veren
- Outdoorcooking, gietijzer, branders
- Minimaal 20 verschillende knopen, 3 sjorringen en 2 takelsystem kennen
- Een droogpakket kunnen maken
- Sneeuwschoenlopen, techniek
- Drie dagen kunnen hiken in ruig terrein gedurende winterse omstandigheden
- Oriënteren met behulp van de poolster
- Oriënteren met gebruik van de sun stick
- Kanoen, techniek en rescue
- In staat zijn tot het leiden van een daghike inclusief 'Interpretive talks'
- Be able to theoretical prepare a multi-day hike in front Country
- Het theoretisch kunnen voorbereiden van een meerdaagse trip in 'Front Country'
- Daypack, wat hoort er in te zitten
- Kleding, wat te dragen
- Schoenen, wat te dragen.
- Een 12 uurs testdag voldoende afronden aan het eind van het jaar
- Een 30 kilometer oriëntatieloop voldoende afronden
- Een logboek kunnen bijhouden
- Leave no Trace principes kennen

Rescue

- Medic First Aid certificering
- Wilderness First Aid basics (spalken, transporteren, stretchers etc)
- Halve dag 'Lawine training'. Sneeuwprofiel maken, sheartest, gebruik van schep, sonde en lawinepieper.
- Theoretische kennis hebben ten aanzien van Avalanche Awareness
- Kennis van noodsignalen

Les en leiding geven
- Didactiek
- Group Management

Leerjaar 2

NB: vanaf leerjaar twee, zullen een aantal lessen in het Engels gegeven worden en ook geregeld Engeltalige boeken gebruikt worden. Europese soorten Fauna en Flora behandelen we ook in het Nederlands. Dit geldt ook voor vakken als Coaching & Training, didaktiek en Medic First Aid

Didactics, teaching, public speaking, Leadership, Coaching & Training

Nature & Wildlife

- Be able to identify 80% of all Dutch Bird species (including winter guests / migrating birds as Geese and ducks)
- Be able to identify 99% of all European Mammal species (excluding Bats and subspecies of mice, vole & Shrew)
- Be able to identify at least 150 species of (European) plants.
- Know at least 40 plants and their Food value.
- Be able to identify 90% of all bird species of the Bialowieza forest
- Be able to identify at least 40 European bird species by sound
- Advanced knowledge of animal tracks, animal gaits and patterns
- Tracking in te snow
- Be able to identify 90% of the European Owls, Raptors, Woodpeckers and Grouse species.
- Be able to identify 90% of the European Boreal forest Bird species
- Be able to identify at least 20 species of Alpine plants
- Be able to identify all Dutch amphibians and reptiles
- Be able to identify poisonous European snakes
- Be able to identify at least 20 species of inland fish
- Have basic knowledge of European insects
- Have basic knowledge of European mushrooms and Lichens
- Plant Medicine

MODULE: BASIC PLANT MEDICINE COURSE	
Module Goal	To provide learners the understanding of plant medicine and how to use it in every day life as well as for wilderness first aid situations.
Objectives	Learners will be able to: • Understand how plant medicine works • Learn about the differences in plant medicine and pharmaceuticals • Learn the different ways to administer plant medicines • Understand tissue states • Learn basic first aid using plants • Learn how to manage pain with plants • Learn basic plant medicine on different body systems • Learn the basics of making medicine • Learn how to make a plant based first aid kit

Topics and Sub-Topics	• Introduction to Plant Medicine
	  • What is plant medicine?
	  • Traditional Native plant medicine use from the Cree tribe of Canada
	  • Experiences with plant medicine
	  • Latin Binomials
	• Traditional Medicine for a Modern World
	  • A comparison of Plant Medicine and Pharmaceuticals
	  • Bio-pathways for the layperson
	  • Organ affinity/Localized herbs
	• Administering Plant Medicine
	  • Understanding tissue states
	  • Delivery systems
	  • Delivery methods
	  • Skin – salves, creams, oils, sprays, fomentations, wraps, poultice
	  • Sublingual – tinctures, glycerites, acetums
	  • Digestive – teas, decoction, eating
	  • Inhalation – steams, smoking
	• Basic Plant First Aid
	  • Barrier Nursing using plants
	  • Sanitizers
	  • Saponins
	  • Natural hand sanitizers
	• Emergency Care
	  • CPR Protocol
	  • Shock
	  • Protocol
	  • Plant Sprays
	• Wound Care
	  • Tools
	  • Wound closure
	  • Dry dressings
	  • Moist dressings

	• Poultice • Wound Care Steps (Non Life threatening) • Protocol • 4 Stages of Wound Healing • Hemostasis • Inflammation/Infection • Proliferation/Granulation • Remodeling/Maturation • Plants and methods used in the 4 stages of wound healing • Burns • Superficial burns • Infection • Primary/initial • Basic Eye Care • Eye poultices • Basic Dental • Pain relief • Tooth sticks • Tooth powders • Bone/Muscle/Joint • Muscle and joint pain • Strains and sprains • Poultice • Liniment • Internal • Ottawa ankle rules • Wraps • Pain • Types of pain • Chasing pain • Helpful plants • Digestive • Nausea • Diarrhea • Constipation • Poisonings • Kidney/Bladder • Stings and bites • Making a Plant Based FAK • Basics of Medicine Making • Materia Medica • Yarrow • Plantain

Hike & Survival

- 100% score on starting a fire using a fire rod and only woodcurls as kindling
- Finetuning every technique from the first year
- Super shelter
- Winter travel & Survival
- Use of pulka's
- Use of snowshoes
- Camping in the snow
- Yucan Survival stove
- Be able to go on in rough terrain for six days during winter
- Preparing and leading a 3 day trip in rough terrain, in winter
- Be able to organize and lead a full day-hike in the Alps including interpretive talks and teaching H&S skills
- Cordage
- Purifying water
- Eating Snow
- Counting Callories, food. What to eat and why
- Burning protein as energy source *
- Cleaning fish
- Cleaning birds
- Camp Hygiene
- Wilderness Camping
- Canoeing (rescue, tripplanning, multiple daytrip)
- Rules and regulations
- Be able to theoretical prepare a week hike in front Country
- A 24 hours skill testing is included at the end of the year.

Rescue

- Be able to make a Risk analysis and Emergency plan
- Wilderness First Aid, at least 30 hours training
- Planning **>** Bone, muscle and joint injuries
- **>** Your health **>** Sudden medical emergencies
- **>** Assessment **>** Environmental emergencies
- **>** Airway emergencies **>** Poisons
- **>** Breathing and circulation emergencies **>** Extended care
- **>** Cardiac and respiratory arrest (includes CPR-C) **>** Evacuation: transporting the ill or
- **>** Wound care injured person
- **>** Head and spine injuries

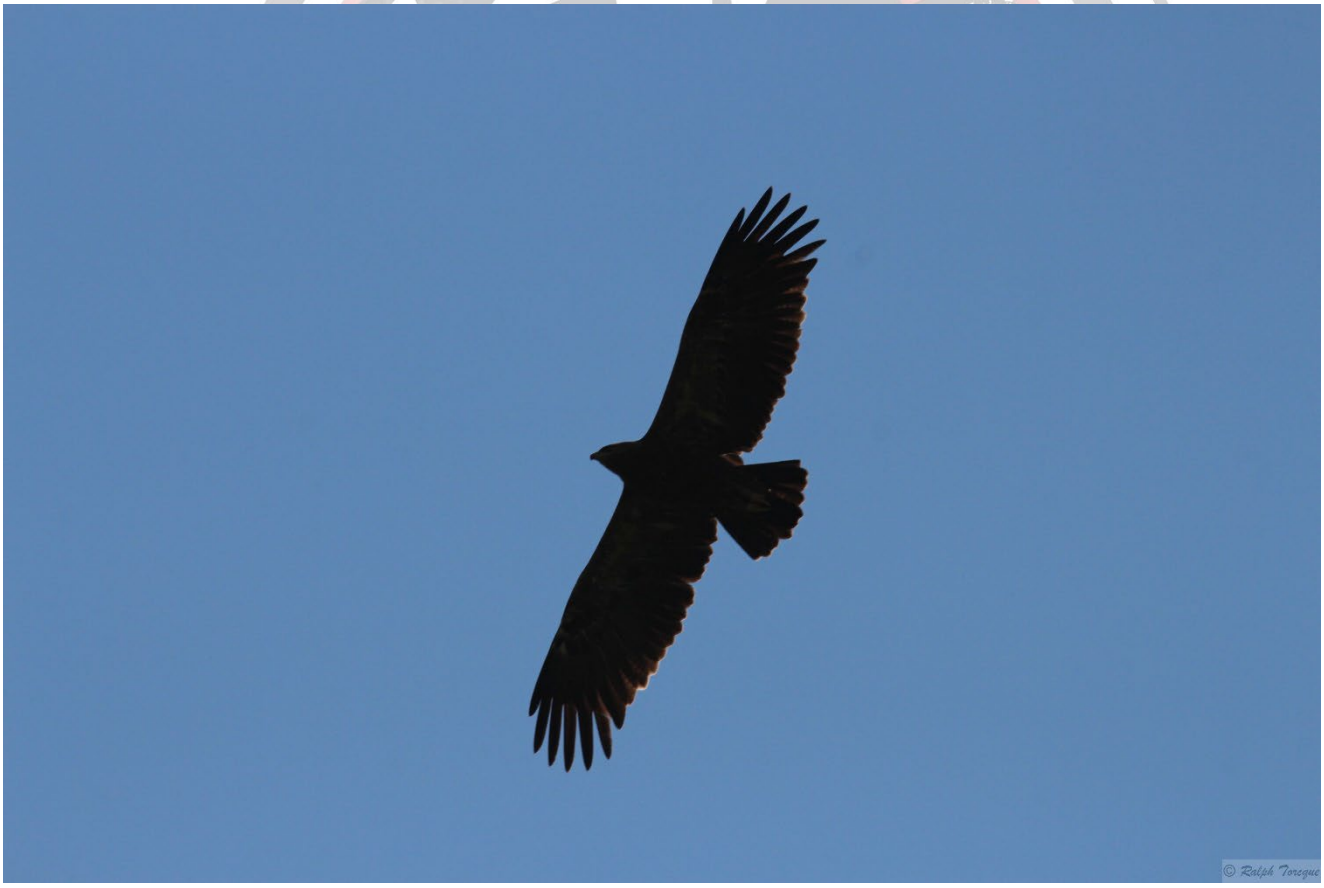
- Medic First Aid re-training, at least 20 hours
- Search & Rescue Basics
- Advanced Rope Rescue
- Rappelling and single pitch climbing techniques
- Avalanche awareness, full day training

Leerjaar 3

Didactics, teaching, public speaking, Leadership, Coaching & Training

Nature and Wildlife

- Be able to identify 99% of all Mammals living in Alberta, Canada
- Be able to identify 80% of European and Alberta mammal tracks, patterns, signs and gaits
- Be Able to identify at least 30 Alberta birds
- Be Able to identify at least 80 Alberta plants and lichens
- Know the different Eco zones and Eco regions
- Know what Indicator, Keystone and Umbrella species are.
- Be able to explain connections between landscapes, flora & fauna
- Know how to use cameratraps
- Plant Medicine

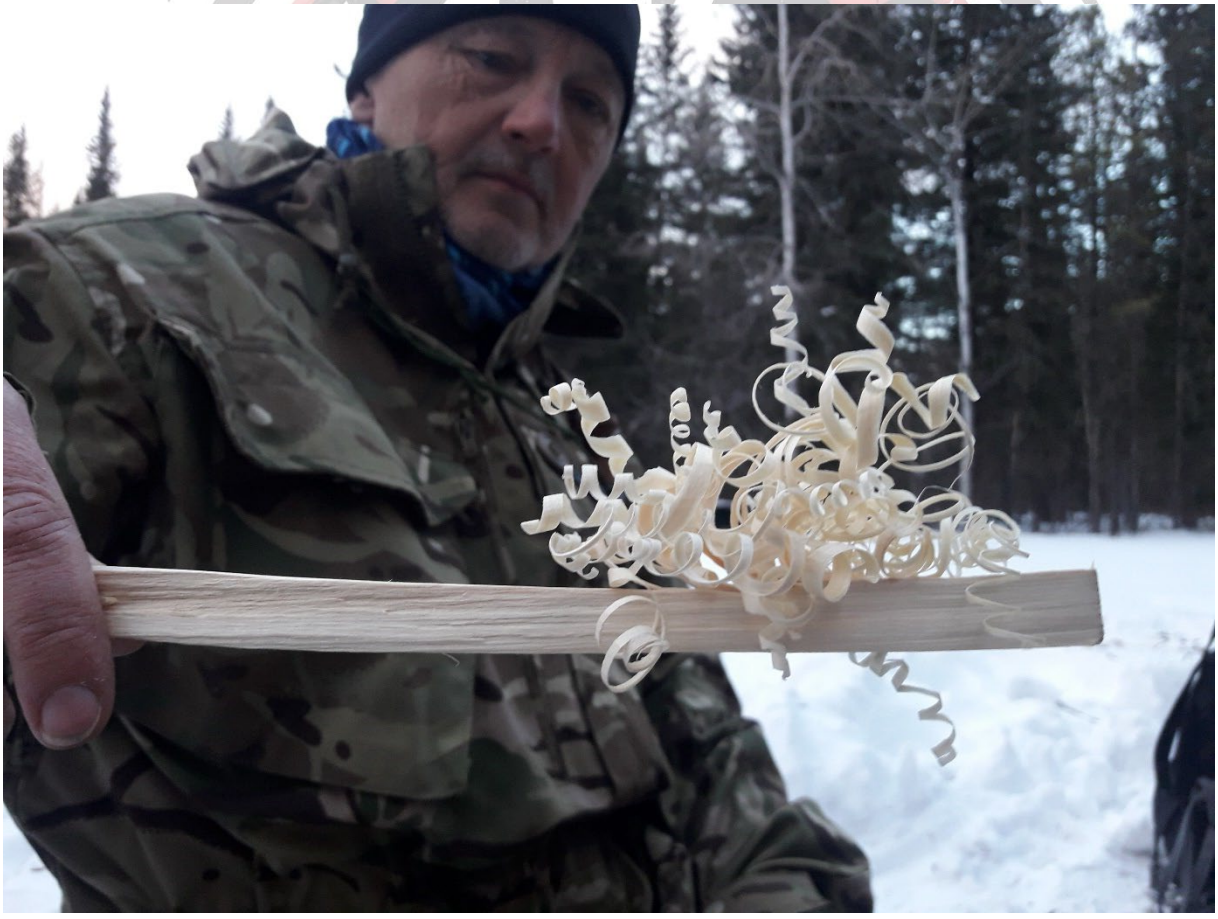


Wilderness Guide

SHORT TERM SURVIVAL	
Module Goal	To provide learners the ability to know what to do and how to make decisions when things go wrong and how to formulate a plan to deal with the situation they are faced with using equipment they have with them or improvising from the local bush.
Objectives	Learners will be able to: • Recognize a short-term survival and emergency situation • React to a short-term survival and emergency situation • Understand how to manage a survival situation in a logical manner • Learn a variety of survival skills • Recognize when, where and why to use these skills • Use practice time to become competent at these skills

Topics and Sub-Topics	• Introduction
	• Rules of 4
	• Psychology of Survival
	• Fire Making Skills
	  • Fire through the ages
	  • Traditional Methods
	  • Modern Methods
	  • Safety
	• Shelters
	  • Local bush materials
	  • Tarps
	• Bush Knots
	• Improvised Whistle
	• Improvised Candle
	• String Making
	  • Various Plants
	  • Other

Objectives	Learners will be able to: • Recognize a short-term survival and emergency situation • React to a short-term survival and emergency situation • Understand how to manage a survival situation in a logical manner • Learn a variety of survival skills • Recognize when, where and why to use these skills • Use practice time to become competent at these skills
Topics and Sub-Topics	• Basic ground to air signals • Water purification • Safe Knife skills • Bush Tools and their uses • Clothing strategies. • Theories on eating or fasting in a survival situation • Bush Navigation strategies (no Compass) • Building a Survival kit

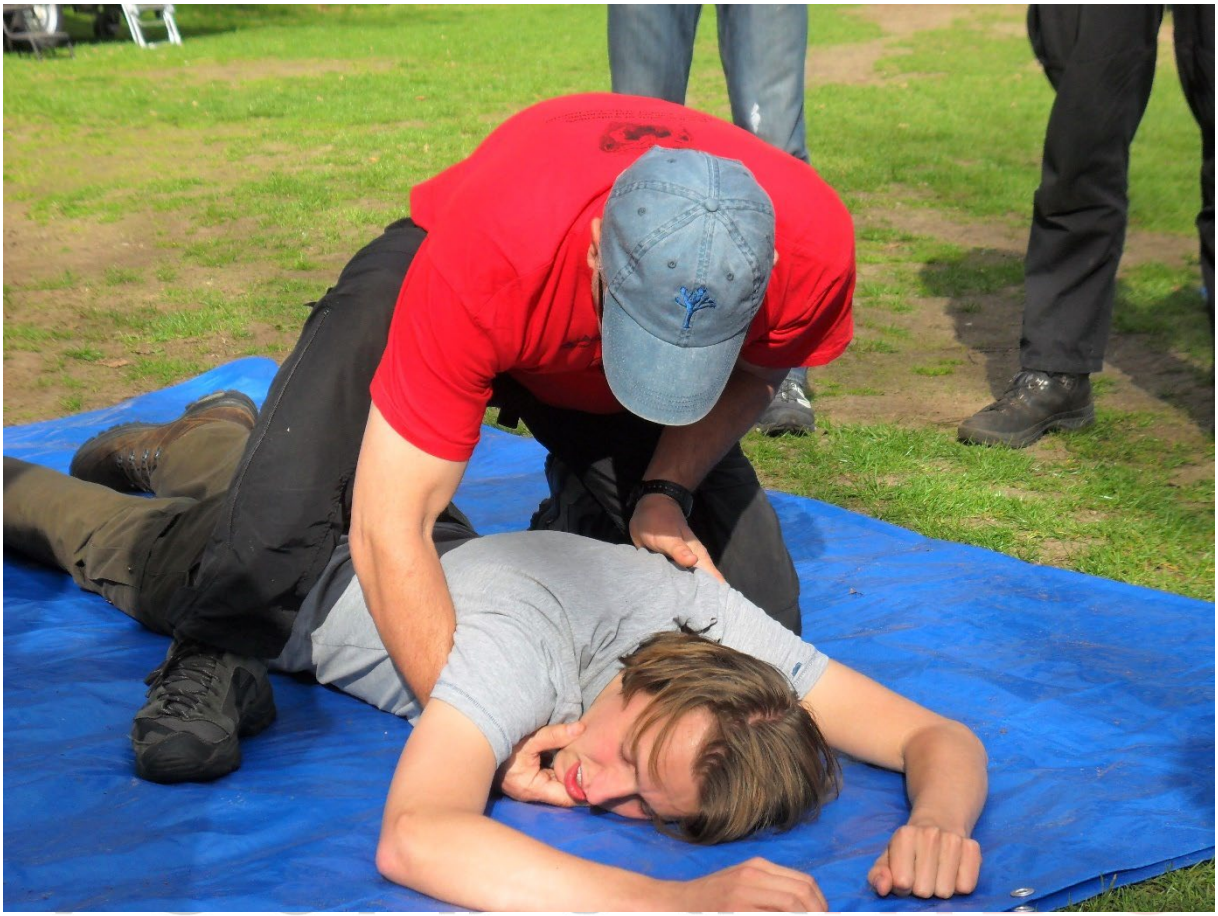


- Be able to guide in Remote areas
- Be able to coexist with big predators and other Canadian wildlife
- Outdoor Cooking without instant food

- Fine-tune every skill learned and adapt to Remote Wilderness Areas
- A 24 hours solo skill challenge is conducted at the end of the program (with limited food and gear)
- Carving techniques using a **Try stick.**
- Using a **bowdrill** to make fire.
- Shaga and Tinder fungus
- Twig fire
- Twig bundle
- Parallel fire
- Cross fire
- Star fire
- Choosing a safe fire site
- Extinguishing campfires
- Suspending systems
- Quick rigs
- Tripod
- Trench fire
- High bar
- Ground oven
- Gill making
- Friction Fire using a bow drill learning the finer points.
- Bucksaw
- Blanket backpack
- Spoon Carving
- Rabbit stick
- Archery
- Food gathering in the boreal forest
- Bear safety
- Cougar Country safety
- Rules and Regulations
- Using bearspray
- Hand signs for animals

Rescue

- Wilderness First Aid



Module Goal	To provide learners with an understanding of the reasoning's for an advanced wilderness first aid course, and to become proficient in using this skill.
Objectives	Learners will be able to: • Understand the difference between Wilderness first aid and Urban first aid • Understand all the legal components of leadership as it applies to first aid • Learn about how to prepare and plan for a remote program or trip • Understand the importance of their own health as a leader • Learn how to manage their own health in a remote setting • Understand how to plan for, react to and take action in an emergency situation

Topics and Sub-Topics	• Introduction
	  • Canadian Red Cross
	  • Why this course was developed
	  • Urban First Aid vs Wilderness First Aid
	• Preparation and Planning

	• Preparing for and preventing emergencies • Understanding components of a pre-trip plan • Assessing skills and assets of group members and other guides • Documentation of planning and emergencies • Legalities of dealing with a death in a wilderness situation • Leadership duties, qualities and responsibilities • Your Health • Water decontamination • Basic hygiene especially in the wilderness • Infectious disease spreading and prevention • Preventing infection • Using barrier devices • Sleep and other aspects of a leaders health for self and group • P.L.A.N. • Scene surveys • Triage • Basic life support – checking and clearing • Moving ill or injured people • Signs & symptoms and treatment for shock • Secondary survey • Head to Toe check • Recovery position • How to make a plan • Communication methods for accessing help • When to contact outside emergency help • Identifying who will be coming to help • What information to give to rescuers before they come • Responding to multiple casualty incidents

EMERGENCY CARE	
Module Goal	To provide learners with an ability to perform life saving skills at a basic and advanced level
Objectives	Learners will be able to: • Understand emergencies • Understand different types of emergencies • How to respond to an emergency • How to manage basic wound care • Prevention
Topics and Sub-Topics	• Airway Emergencies • Different Airway Emergencies • Identifying signs and symptoms of choking • First aid for mild and severe choking – adult, child & infant

	• First aid for unconscious choking – adult, child & infant • First aid for choking people who are large, pregnant or unable to stand • Making appropriate decisions during a choking emergency • How to determine a plan for an airway emergency • Breathing Emergencies • Respiratory distress • Respiratory arrest • Hyperventilation • Asthma • Allergies • Anaphylaxis • Smoke Inhalation • Pneumonia • Using and inhaler • Using an epinephrine auto-injector • Determining a plan for a breathing emergency • Circulation Emergencies • Preventing circulation emergencies • Identifying risk factors • Heart attack • Angina • Cardiac arrest • AED – wilderness and urban • Stroke • TIA • Deadly bleeding – internal • Deadly bleeding – external • Tourniquets • Pressure points • Determining a plan for circulation emergencies • First Aid for Respiratory and Cardiac Arrest • Water decontamination • Basic hygiene especially in the wilderness • Infectious disease spreading and prevention • Preventing infection • Using barrier devices • Sleep and other aspects of a leaders health for self and group

EMERGENCY CARE	
Module Goal	To provide learners with an ability to perform first aid skills at an advanced level

Objectives	Learners will be able to: • Understand head and spine injuries • Understand bone, muscle and joint injuries • Learn how to respond to and manage for head and spine injuries • Learn how to respond to and manage bone, muscle and joint injuries • Implement Evacuation procedures • Learn how to manage wound care • Understand Prevention

Topics and Sub-Topics	• Head and Spine Injuries
	  • Signs and symptoms of head and spine injuries
	  • First aid for head and spine injures
	  • Improvising and applying a collar
	  • How to move an injured person
	  • Identifying when to remove a helmet
	  • How to remove a full face helmet
	  • Discontinuing spinal precautions
	  • Jaw thrust
	  • Determining a plan for head and spine injuries
	• Bone, Muscle and Joint Injuries
	  • Signs, symptoms and first aid
	  • Principles of splinting
	  • Removing a boot
	  • Determining a plan for Bone, Muscle, and Joint Injuries
	• Wound Care
	  • Basic bandaging
	  • Signs, symptoms and first aid for various wounds
	  • Crush & chest injuries
	  • Eye/ear injuries
	  • Burns
	  • Animal attacks
	  • Determining a plan for wound care

ENVIRONMENTAL AND POISONS	
Module Goal	To provide learners with an ability to perform first aid skills at an advanced level
Objectives	Learners will be able to: • Understand cold injuries and how to care for them • Understand cold illnesses and how to manage them • Understand consequences of mismanagement of a cold illness • Understand heat injuries and how to care for them • Understand heat illnesses and how to manage them • Understand environmental situations and how to manage them

	• Understand poisonings and different types • Understand Prevention

Topics and Sub-Topics	• Cold Related Injuries
	  • Hypothermia
	  • Frost nip & frost bite
	  • Snow blindness & immersion foot
	• Heat Related Injuries
	  • Hyperthermia
	• Prevention
	• Determining the plan for cold and heat related emergencies
	• Environmental Situations
	  • Lightning
	  • High altitude sickness
	  • Scuba diving emergencies
	  • Cold water immersion and drowning
	  • Ice and Water rescue
	  • Determining a plan for Environmental situations
	• Poisonings
	  • Types of poisons
	  • How poisons happen
	  • How to prevent poisoning
	  • First aid for poisoning
	  • Determining a plan for poisonings

MEDICAL EMERGENCIES, EVACUATION, TRANSPORTATION AND EXTENDED CARE	
Module Goal	To provide learners with an ability to perform first aid skills at an advanced level
Objectives	Learners will be able to: • Identify medical emergencies and how to care for them • Understand evacuation and when it is necessary • Understand when and how to transport injured clients • Understand how to offer extended care and improvising when needed • Understand Prevention

Topics and Sub-Topics	• Medical Emergencies
	  • Seizures
	  • Diabetic Emergencies
	  • Fainting
	  • Childbirth
	  • Caring for a new born baby
	  • Digestive problems

	• Determining a plan for Medical Emergencies
	• Evacuation and Transportation
	  • Determining and setting up for a landing zone for helicopters
	  • Safety precautions for helicopters
	  • Simple carries
	  • Safely lifting
	  • Improvised stretchers
	  • Evacuation methods
	  • Determining the minimum number required to transport someone safely
	• Extended Care
	  • The body's four basic needs for survival
	  • Shelters and site selection
	  • Fire
	  • Balanced input and output
	  • Signs and symptoms of mental health problems
	  • Critical Incident Stress Management
	  • Personal hygiene for self and injured/ill persons
	  • Camp hygiene
	  • Monitoring an injured person
	  • Monitoring vital signs

- Medic First Aid retraining
- Search & Rescue fundamentals (NASAR)
  - SAR systems
  - SAR incident management and organization
  - Legal and Ethical aspect of SAR
  - Psychology and Fitness
  - Survival and Improvisation
  - Personal equipment
  - Travel skills
  - Tracking
  - Search operations
- Be able to organize and lead a rescue party in remote areas (know what to do and what not to do)
- Using a SPOT

- Avalanche Awareness 1 day

Knowledge Standards

Interpretation

Apprentice Interpreter	Professional Interpreter
All Apprentice Interpreters need to be able to answer these questions: 1. What is interpretation and how is it different from simply providing information? 2. What are the four qualities of effective interpretation as defined by Sam Ham? 3. What is a theme and how is it different from a topic? 4. How do you develop a theme and appropriate content that supports that theme? 5. How do you effectively introduce and conclude an interpretive event? 6. What is the connection between interpretive guiding and the creation of high-quality visitor experiences? 7. Why is it important that guiding be visitor-focused rather than guide-focused? 8. What are the four primary learning styles and how can you ensure your programs incorporate each of these learning styles? 9. How can guided events be made relevant and enjoyable? 10. What are the basic rules of effective public speaking? 11. What do you do when you don't know the answer to a visitor's question? 12. Why is a commitment to ongoing learning important for interpretive guides?	**All Professional Interpreters need to be able to answer all the questions highlighted in the Apprentice Interpreter column plus all of the following questions:** 1. What is the role of interpretation in the visitor experience, heritage protection and society as a whole? 2. What questions do you need to answer to ensure your guided event is relevant to your audience? 3. How do you transform a simple theme into a theme that is truly thought provoking and engaging? 4. What are "sub-themes" and how do they help improve your presentations? 5. How can props enhance your presentation? 6. How can stories enhance your interpretation? 7. What techniques can be used to improve your storytelling skills? 8. How can the use of humour enhance and detract from your interpretive event? 9. What universal topics appeal to most audiences? 10. How can you measure the success of your interpretive event? 11. What techniques can be used to help you deal with nervousness? 12. What is "off the cuff" interpretation and how can you improve these skills? 13. What are some advanced public-speaking techniques you can use to enhance your interpretation?

All Standard/Apprentice Interpreters will be able to:	All Professional Interpreters will be able to demonstrate all the skills of the Apprentice interpreter and will also be able to:
1. Write a theme for a specific interpretive presentation. 2. Write three points that relate directly to that theme. 3. Introduce and conclude an event in a professional and organized manner. 4. Make an event enjoyable and relevant to a	1. Incorporate the four qualities of effective interpretation into a five- minute oral presentation. 2. Incorporate the four qualities of effective interpretation into spontaneous, “off the cuff” interpretation.

specified audience. 5. Demonstrate basic public-speaking skills.	3. Plan and theme an entire guided interpretive experience using the four qualities of effective interpretation. 4. Demonstrate advanced public-speaking skills.

Knowledge Standards

Geology, Glaciology and Climate

Apprentice Interpreter	Professional Interpreter
All Apprentice Interpreters need to be able to answer these questions: 1. Why is it important to understand the local natural history? 2. How were the Rocky Mountains formed? (sedimentation, mountain building, erosion) 3. What are the basic types of rock in the Rockies and how can you identify these in the landscape? 4. What is a fossil and why are they here in abundance? 5. Where exactly are the Canadian Rocky Mountains located? Where do they begin and where do they end (N, S, E, W) and what are the three ranges that make up the Rockies? 6. What are glaciers, how do they move and what do they do to the landscape? 7. Why are the lakes and rivers blue-green in colour? 8. What are the major river systems in the Rockies and what oceans do they flow into? 9. What is the uniqueness and importance of the Rockies as the source area for several major rivers? 10. What are the characteristic landforms of the Rockies? (braided stream, delta, talus, karst/canyon, alluvial fan) 11. Where does our weather come from and how do the mountains influence temperature and moisture? 12. What questions do you need to ask yourself to become a better interpreter of our natural and cultural history?	**All Professional Interpreters need to be able to answer all the questions highlighted in the Apprentice Interpreter column plus all of the following questions:** 1. How does the formation of the Rockies fit into the big geological picture and specifically to key events in the ancient past of our region? (e.g. Burgess shale, dinosaurs, formation of vast oil reserves, ice age, first recorded human inhabitation of the area) 2. Are the Rockies still rising? How do the Rockies compare to other major mountain ranges in the world (e.g. Himalayas, Swiss Alps) 3. What are the three basic classes of sedimentary material? 4. What do the different layers of sedimentary rock in the mountains tell us about the aquatic systems that once moved through this area? (e.g. particle size, slow-moving and fast-moving rivers and the sediments settling out in each) 5. How do loose sediments become solid rock? 6. How do you identify and explain the difference between dominant rock types in the Canadian Rockies and how can identifying these differences make the ancient landscape come alive for visitors you are guiding? 7. What are the dominant rock formations in classic Canadian Rockies viewscapes (e.g. Castle Mountain) and what stories do these formations tell us? 8. What is the basic pattern of sedimentary rock in the Canadian Rockies and how

	does this relate to the Foothills, Front Ranges and Main Ranges? 9. What is the significance of continental drift to the past and present environments represented in the Canadian Rockies? 10. How do glaciers advance and retreat and what has happened to them since the last major ice age? . What is the basic anatomy of a glacier? 12. What landforms are typical of the area represented by Banff, Jasper, Yoho and Kootenay National parks and how do they help us understand the Rockies? (e.g. alluvial fan, braided stream, delta, talus slope, karst/canyons, u-shaped valleys, hanging valleys) 13. How does the climate of Banff and Jasper compare with Kootenay and Yoho? 14. What are the typical cloud formations in the central Rockies and what can they tell us? 15. What are typical mountain weather phenomena and how do they help us understand local ecology and culture? (e.g. katabatic winds, orographic precipitation/upslope precipitation, Chinook effect) 16. How do slope and aspect influence local climate? 17. What is climate change and in what ways to we observe it in the Central Rockies?

Knowledge Standards

Ecology

Apprentice Interpreter	Professional Interpreter
All Apprentice Interpreters need to be able to answer these questions: 1. Why is it important to understand the local natural history? 2. What is an ecosystem? 3. What are the three main ecoregions in the Rockies? 4. What are three representative tree species, plant species and animal species in the Rockies? Describe least one interesting interpretive detail about each. 5. What are the primary ecosystem components in the central Rockies and what is their connection to the ecosystem as a whole? 6. What is the difference between black bears and grizzlies? 7. What is the difference between sheep and goats? 8. What is the difference between elk, deer, moose and caribou? 9. What is the difference between spruce, fir and pine? 10. What questions do you need to ask yourself to become a better interpreter of our natural and cultural history? 11. What are two native species on COSEWIC's Endangered Species list and why are they considered to be at risk?	**All Professional Interpreters need to be able to answer all the questions highlighted in the Apprentice Interpreter column plus all of the following questions:** 1. What factors influence the success of vegetation? 2. What are representative examples of plants and animals living in each ecoregion? Describe at least one unique trait that helps these plants and animals survive. 3. What are the fundamental natural processes in our mountain ecosystems and how do these processes connect with the survival of plant and animal species in the Rockies? 4. What is the role of fire in the mountain ecosystem? How has that role changed in the last 100 years and what are the consequences? 5. What is the Mountain Pine Beetle? Why is it here and why is it ecologically significant? 6. What are the key components of habitat? Give examples of different species and the kind of habitat that meets their various needs. 7. What are some common local examples of ecosystem interconnectedness? (e.g. fire, aspen, elk. High browsing and wolves. Bears, fire, avalanches and alluvial fans. Elk and beaver. Fire and Clark's nutcrackers. Mature spruce, caribou, roads, wolves. Glaciers, winter, sand dunes, coyotes. Sedimentation, CPR, Pochahontas, Bankhead, Heritage homes) 8. What is biodiversity and why is it important? 9. Why is the grizzly bear considered an indicator species? 10. What factors influence population dynamics? 11. How do humans connect to the ecosystem?

Knowledge Standards

Human History

Apprentice Interpreter	Professional Interpreter
All Apprentice Interpreters need to be able to answer these questions: 1. How long have local Aboriginal groups lived in the Canadian Rockies and what evidence do we have of this long inhabitation? 2. What groups live(d) in the Banff and Jasper regions of the Canadian Rockies? 3. What role did local Aboriginals play in the success of early European travels in the Rockies? 4. What is the significance of the Fur trade to Banff, Yoho and Kootenay national parks? Who were the key European figures who travelled in these areas? (Thompson, Rundle) 5. Who followed in the steps of the Fur trade (geological land surveyors), why did they come here and how are their travels significant to us today? (Palliser Expedition, special note James Hector) 6. Why did the government decide to build a railway and why was it built through the Bow Valley? 7. What impact did the construction of the railway have on our national and regional history? 8. When did tourism start in the mountain national parks, who were some of the key players and how did they influence tourism in the area? (Swiss Guides, Brewster) 9. How does our history connect to the evolution of the parks system?	**All Professional Interpreters need to be able to answer all the questions highlighted in the Apprentice Interpreter column plus all of the following questions:** 1. What was life like for each of the Aboriginal groups who called the Rockies home and why did they come here? 2. How did the horse influence local Aboriginal history? 3. How did the introduction of European diseases impact local Aboriginal history? 4. What are the challenges associated with the traditional historical perspective with respect to understanding the past, present and future? How can we move beyond this obstacles? 5. What was the impact of early railroad surveys and the construction of the railway itself to the local communities in Banff, Yoho and Kootenay National parks? (specifically mention Surveyors guides and packers like A.B. Rogers, Tom Wilson, Edwin Hunter, Bill Peyto, McCabe Bros., van Horne) 6. How have European attitudes towards mountains and wilderness impacted our history? 7. What is the relevance of guides and outfitters to our history and to our profession as interpretive guides? 8. Why do people come here now and what historical challenges has the modern tourism economy produced? 9. How is our sense of place being challenged? What role does sense of place have in providing, authentic experiences and realizing the sustainability goals of the park and tourism? 10. How does the traditional view that natural and cultural history are separate impact our ability to understand and solve the issues we are facing as a culture?

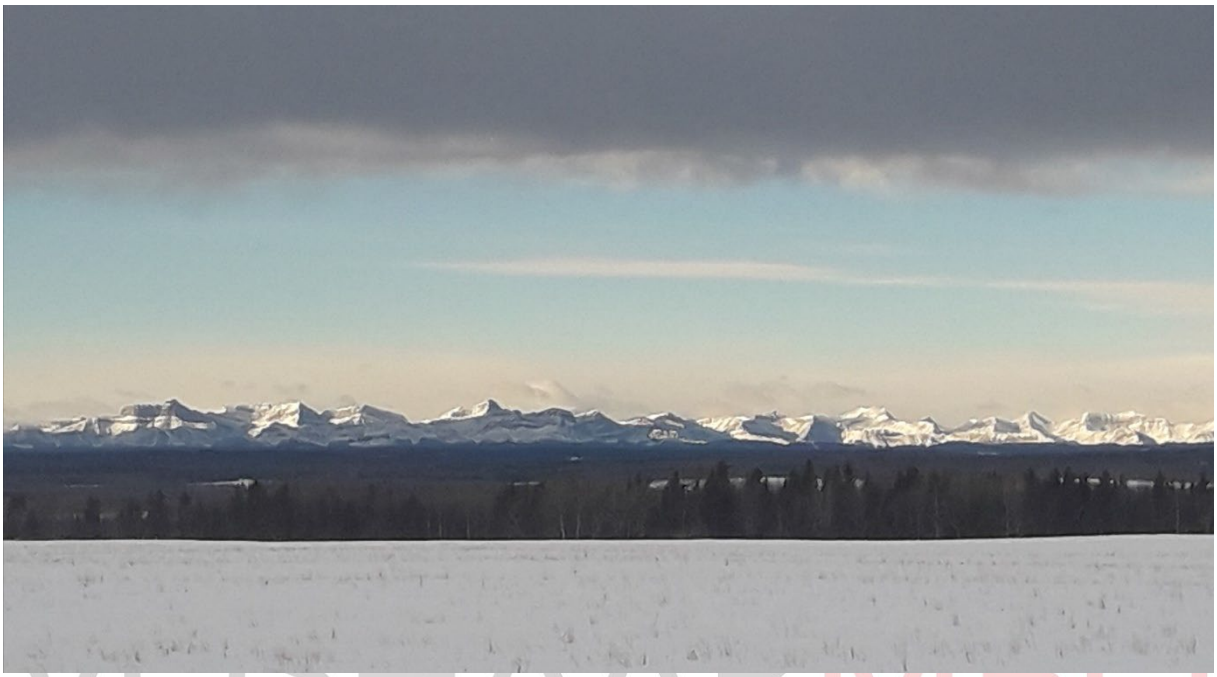
Knowledge Standards

Park Management

Apprentice Interpreter	Professional Interpreter
All Apprentice Interpreters need to be able to answer these questions: 1. When and why was Banff National Park Created? 2. When and why were Yoho, Jasper and Kootenay created? 3. What parks make up the Canadian Rocky Mountain Parks World Heritage site and what were the key reasons it was designated as a WHS? 4. What are three National Historic Sites in the Mountain National Parks and what is the main story each tells? 5. What is the Heritage Tourism Strategy and what are its four main goals? 6. What is the role and purpose of guides in the Mountain National Parks? 7. What is commemorative integrity? 8. What are three things you can do as a guide to help wildlife and plants to survive in the Rockies? How can guides protect cultural resources? 10. What are the **four** main elements in the national park mandate? 11. What is ecological integrity? 12. What is the 'precautionary principle', and 'adaptive management'? . Why is it not good to feed wildlife? 14. What is an overpass and underpass? 15. What is a non-native species? 16. What is a wildlife corridor? 17. What is a prescribed burn? 18. How and why has the management of national parks changed from 1885 to present? 19. What will direct the management of our parks into the future? 20. How do societal values influence the management and direction of our National Parks?	**All Professional Interpreters need to be able to answer all the questions highlighted in the Apprentice Interpreter column plus all of the following questions:** 1. What is the National Parks System Plan and why is it significant? 2. What is the Historic Sites System Plan and why is it significant? 3. What are the National Historic Sites located in Banff National Park and why are these sites significant? 4. How has 'conservation thinking' evolved and how has its evolution impacted the management of Canada's National Parks? 5. What is wildlife habituation, how is it caused and how can it be prevented? 6. What is habitat effectiveness (aquatic and/or terrestrial) and how is Parks managing to ensure it is protected? 7. What are introduced species, how are they impacting the ecosystem, and what is being done about them? 8. What is habitat fragmentation, how is it caused and what is being done to limit it? 9. What are three characteristics of an effective wildlife corridor? 10. Where are the key wildlife corridors in Banff, Yoho, Kootenay and Jasper and why are they important? 11. What is the role of research in the management of our national parks and what are some examples of how research has influenced management actions in the past? 12. What are some of the primary management challenges in Banff, Yoho and Kootenay national parks ? 13. What can visitors and locals do to help the park attain its ecological integrity goals? 14. How do the changes and actions outside of the park boundaries influence what is happening inside the park boundaries? 15. How can a visit to a national park create new meaning for people while they are on holiday AND when they go home?

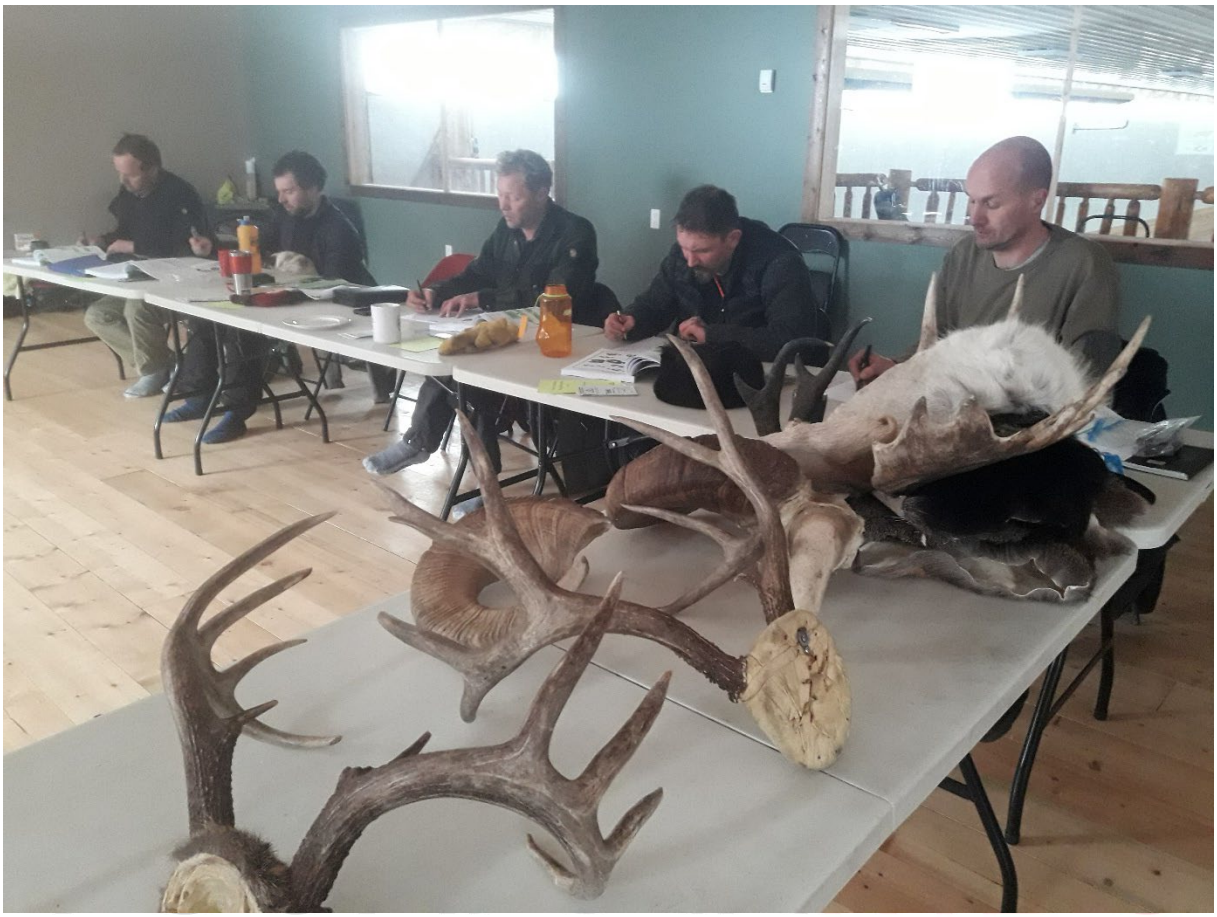
Leerjaar 4

Wilderness Guide



Hunter Education

- Wildlife Management
- Wildlife identification
- Equipment
- Firearms
- Bow Hunting
- Field techniques
- Legal Responsibilities
- Hunting Ethics



Wintertravel & Survival

- Leading, organizing and evaluating a 6 day training during winter in the Jura Mountains
- 14 days during winter in the Canadian Rockies, training the skills and using all the knowledge from the previous years .
- Includes a 48 hours solo in Canada in February

- Trapping, ethics, how to use traps, why to use traps
- Food, how to prepare your own food for a multiple day hike from fresh ingredients
- Ice safety
- Teaching / Leadership / Group Management

Nature & Wildlife Guide Level 2-3 Includes Birds of prey specialisation

Didactics, teaching, public speaking, Leadership, Coaching & Training

Rescue
- Medic First Aid
- Wilderness First Aid
- Advanced Rope Rescue 9 days course

Didactics, teaching, public speaking, Leadership, Coaching & Training
During year two, three and four there will be a lot of training in these techniques

Bushcraft – Wilderness Living Skills
We use the Mors Kochansky 'school' from year one.
All the techniques mentioned above (and more) will be trained, but this might be in earlier moment during the course

Appendix

Canadian Species list

Birds

1- Common Loon
2- Horned Grebe
3- Red-Necked Grede
4- Eared Grebe
5- Cormorant
6- Great Blue Heron
7- Canada Goose
8- Trumpeter Swan
9- American Wigeon
10- Mallard
11- Blue Winged Teal
12- Northern Shoveler
13- Northern Pintail
14- Green Winged Teal
15- RedHead
16- Ring Necked Duck
17- Lesser Scaup
18- Harlequin Duck
19- Bufflehead
20- Common Goldeneye
21- Barrow's Goldeneye
22- Hooded Merganser
23- Common Merganse
24- Osprey
25- Bald Eagle
26- Northern Harrier
27- Sharp Shinned Hawk
28- Cooper's Hawk
29- Northern Goshawk
30- Swainson's Hawk
31- Red-Tailed Hawk
32- Rough-Legged Hawk
33- Golden Eagle
34- American Kestrel
35- Merlin
36- Prairie Falcon
37- Peregrine Falcon
38- Gyrfalcon

39- Partridge
40- Pheasant
41- Ruffed Grouse
42- Spruce Grouse
43- Blue Grouse
44- Willow Ptarmigan
45- White-Tailed Ptarmigan
46- Sharp-Tailed Grouse
47- American Coot
48- Sandhill Crane
49- Whooping Crane
50- Killdeer
51- Greater Yellowlegs
52- Solitary Sandpiper
53- Spotted Sandpiper
54- Common Snipe
55- Rock Dove
56- Great Horned Owl
57- Snowy Owl
58- Northern Hawk Owl
59- Northern Pygmy Owl
60- Barred Owl
61- Great Grey Owl
62- Boreal Owl
63- Northern Saw-Whet Owl
64- Night Hawk
65- Black Swift
66- Belted Kingfisher
67- Yellow Bellied Sapsucker
68- Downy Woodpacker
69- Hairy Woodpecker
70- Three-Toed Woodpecker
71- Black Backed Woodpecker
72- Northern Flicker
73- Piliated Woodpecker
74- Northern Shrike
75- Gray Jay
76- Steller's Jay
77- Blue Jay
78- Clarck's Nutcracker
79- Magpie
80- American Crow
81- Raven
82- Tree Swallow
83- Bank Swallow

84- Barn Swallow
85- Cliff Swallow
86- Black-Capped Chickadee
87- Mountain Chickadee
88- Boreal Chickadee
89- Red-Breasted Nuthatch
90- Brown Creeper
91- House / Winter Wren
92- American Dipper
93- Golden-Crowned Kinglet
94- Ruby-Crowned Kinglet
95- Mountain Bluebird
96- Swainson's Thrush
97- Hermit Thrush
98- American Robin
99- Varied Thrush
100- Starling
101- American Pipit
102- Bohemian waxwing
103- Cedar Waxwing
104- Yellow Warbler
105- Yellow-Rumped Warbler
106- Townsend's warbler
107- Blackpoll Warbler
108- Northern Waterthrush
109- Common Yellowthroat
110- Wilson's warbler
111- Western Tanager
112- Chipping Sparrow
113- Savannah Sparrow
114- Song Sparrow
115- Lincoln's Sparrow
116- White Throated Sparrow
117- White Crowned Sparrow
118- Dark-eyed Junco
119- Snow Bunting
120- Rose-Breasted Grosbeak
121- Red-Winged Blackbird
122- Western Meadowlark
123- Brewster's Blackbird
124- Gray-Crowned Rosy Finche
125- Pine Grosbeak
126- Purple Finch
127- Cassin's Finch
128- Red Crossbill

129- White Winged Crossbill
130- Common Redpoll
131- Hoary Redpoll
132- American Goldfinch
133- Evening Grosbeak
134- House Sparrow

Mammals

1- Bison
2- Mountain Goat
3- Bighorn Sheep
4- Pronghorn
5- Elk / Wapiti
6- Muledeer
7- White-Tailed Deer
8- Moose
9- Woodland Caribou
10- Cougar / Mountain Lion / Puma
11- Canada Lynx
12- Bobcat
13- Striped Skunk
14- American Marten
15- Fisher
16- Short-Tailed Weasel / Ermine
17- Long-Tailed Weasel
18- Least Weasel
19- Mink
20- Wolverine
21- Badger
22- Northern River Otter
23- Raccoon
24- Black Bear
25- Grizzly Bear
26- Coyote
27- Grey Wolf
28- Red Fox
29- Porcupine
30- Deer Mouse
31- Shrew
32- Vole
33- Bushy Tailed Woodrat
34- Muskrat
35- Lemming

36- Beaver
37- Gopher
38- Least Chipmunk
39- Yellow-Pine Chipmunk
40- Woodchuck
41- Hoary Marmot
42- Columbian Ground Squirrel
43- Golden-Mantled Ground Squirrel
44- Red Squirrel
45- Northern Flying Squirrel
46- Pika
47- Cottontail
48- Snowshoe Hare
49- Jackrabbit

Plants

Trees

1- Tamarack
2- Black Spruce
3- Jack Pine
4- Lodgepole Pine
5- Balsam Fir
6- White Spruce
7- Red Cedar
8- Subalpline Fir
9- Douglass Fir
10- Western Yew
11- Whitebark pine
12- Pondarosa Pine
13- Balsam Poplar/ Black Poplar
14- Trembling Aspen / White Poplar
15- White Birch
16- Dwarf Birch
17- Green Alder
18- Willow
19- Red-Osier Dogwood
20- Wolfwillow / Silverberry
21- Buffaloberry
22- Saskatoon
23- Choke Cherry
24- Canadian Wild Rose / Prickly Rose
25- Western Mountain Ash

26- Raspberry
27- Cinquefoil
28- Black Currant
29- Skunk Currant
30- Red Currant
31- Gooseberry
32- Mountain Mapple
33- Low bush Cranberry
34- Bush-Cranberry
35- Twinning Honeysuckle
36- Snowberry
37- Blueberry / Huckleberry
38- Dwarf Bilberry
39- Labrador Tea
40- Small Bog Cranberry
41- Lingonberry
42- Bearberry / Kinnikinnik
43- Crowberry
44- False Azalea
45- Common Juniper
46- Creeping Juniper
47- Dogbane
48- Salomon's Seal
49- False Salomon's Seal
50- Fairy Bells
51- Bunchberry
52- Strawberry
53- Five leaved Bramble
54- White Pussytoes
55- Coltsfoot
56- Wild Sweet Pea
57- White Clover
58- Yarrow
59- Baneberry
60- Cow Parsnip
61- Fleabane
62- Aster
63- Daisy
64- Northern Toadflax
65- Meddow Rue
66- Thistle
67- Stinging Nettle
68- Western Wood Lilly
69- Dandelion
70- Arnica

71- Buttercup
72- Indian Paintbrush / Northern Paintbrush
73- Sweetvetch
74- Red Clover
75- Plantain / white man's footprint
76- Bedstraw
77- Twinflower
78- Mountain Cranberry / Lingonberry
79- Wintergreen
80- Grouseberry
81- Calypso Orchid
82- Small Bog Cranberry
83- Fireweed
84- Lupine
85- Spotted Orchid
86- Harebell
87- Butterwort
88- Monkshood
89- Mint
90- Fleabane
91- Western Anemone
92- Aline forget-me-not
93- Cattail
94- Pond Lilly
95- Timothy
96- Sweetgrass
97- Sedge
98- Fern
99- Horsetail

Mosses

100- Stiff Clubmoss
101- Knight's Plume
102- Juniper Moss
103- Awned Hair Cap
104- Brown Talering Splachnum
105- Common Hair-Cap
106- Wiry Fern Moss
107- Common Tree Moss

Lichens

108- Old Man's Beard (Usnea)
109- Witch Hair
110- Horsehair

111- Pixie cups
112- Reindeer lichen
113- Coral lichen
114- Iceland Moss
115- Flattend Snow Lichen
116- Freckle Pelt
117- Dog Pelt
118- Appel Pelt
119- Suplher Cup
120- Spruce Moss
121- Stump Cladonia
122- Sugary Beard

Poisonous Plants
Source: Edible & Medicinal Plants of the Rockies
Lone Pine

There are very few deadly poisonous plants in the Rockies. In most cases you would have to eat large quantities to be fatally poisoned, but even though these plants might not kill you, you may wish you were dead in case you experience their effects.

Below, the more common poisonous plants in the Rockies. But there are more, so make sure you are 100% certain when you eat a plant.

1- Poison Ivy (Toxicodendron radicans)
2- Small Bog-Laurel (Kalmia microphylla)
3- False Azalea (Meziesia ferruginea)
4- White rhododendron (Rhododendron albiflorum)
5- Common Snowberry (Syphoricarpos albus)
6- Seaside arrow-grass (Triglochin maritime)
7- Death-Camases (Zigadenus spp.)
8- Green false-helleborne (Veratrum viride)
9- Western Blue Flag (Iris missouriensis)
10- Water – hemlocks (Cicuta spp.)
11- Poison-Hemlock (Conium maculatium)
12- Anemones (Anemone spp.)
13- Buttercups (Ranunculus spp.)
14- Pasqueflowers (Pulsatilla spp.)
15- Virgin's-bowers (Clematis spp.)
16- Baneberry (Actaea rubra)
17- Colombines (Aguilegia spp.)
18- Monkhoods (Aconitum spp.)
19- Larkspurs (Delphinium spp.)
20- Lupines (Lupines spp.)
21- Goldenbeans (Thermopsis spp.)

22- Locoweeds (Oxytropic spp.)
23- Timber milk-vetch (Astragalus miser)
24- Peavines (Lathyrus spp.)
25- American vetch (Vicia americana)
26- Leafy Spurge (Euphorbia esula)
27- European bittersweet (Solanum dulcamara)
28- Arnicas (Arnica spp.)
29- Groundsels (Senicio spp)