

Trout Lake Ecology Camp 2003



Students



Troy Loman

Age: 20

Trout Lake



Jessica Jumbo

Age: 20

Trout Lake



Justin Kotchea

Age: 14

Trout Lake



Natasha Sanguez

Age: 15

Trout Lake



Jonathon Betsedea

Age: 15

Nahanni Butte



Darwin Moses

Age: 16

Wrigley

Shawna Sibbeston

Age: 15

Fort Simpson



Students



James Simon

Age: 15

Jean Marie River

Kayly Deneron

Age: 15

Fort Liard



Jeremy Simba

Age: 14

Kakisa

Cody Punch

Age: 15

Trout Lake



Robert Murdock

Age: 18

Fort Simpson

Vicky Williams

Age: 15

Fort Simpson

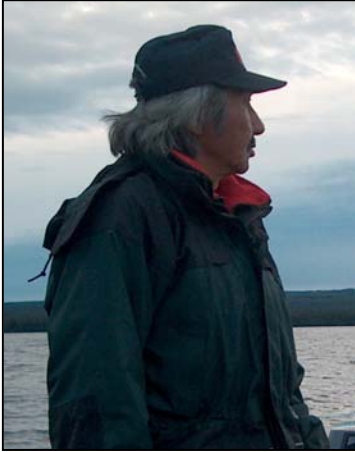


Edwin Isaiah

Age: 15

Fort Simpson

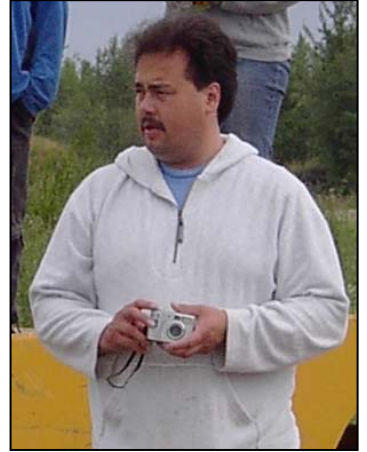
Staff



Dolphus Jumbo



Anthony Ekeneli



Danny Allaire



Jonas Antoine



Emily Jumbo & Joe Punch



Nic Larter



Sharon & Helen Kotchea, Margaret Jumbo

Trout Lake Area and the Camp



Traditional Knowledge

A fish net was set and checked by students and instructors at the beginning of the camp. Because of large waves the net was difficult to locate, therefore the students used a global positioning system (GPS) to locate the net. The net caught many fish (>100), so the second net was not set. Local elders, Emily Jumbo and Joe Punch, taught methods of filleting, scaling and preparing fish for drying. The students were eager to get their hands dirty. Students filleted their own trout and were able to bring the fish home at the end of the camp if they wanted to. A drying rack was set up to prepare dry fish and a smoke fire was maintained throughout the camp. Dry fish was provided for the community feast.

Rabbit snares were set along an old seismic line by students under the guidance of Jonas Antoine and Dolphus Jumbo. Students were taken to a mineral lick where tracks were found and identified.

Jonas Antoine explains the importance of paying respect to the water.



Taking the fish out of the net

Traditional Knowledge

Elder Joe Punch
sharpens his knife by
the dry fish rack



Students filleting their
own fish under the
guidance of local elders

Jonas demonstrating how to
set rabbit snares along a trail



A dry fish prepared
by Emily Jumbo



Navigation & Orienteering

Students were impressed with the high tech equipment that used tracking functions on a GPS and the mapping software (Ozi Explorer) on a laptop computer. They could see on a map of the area where they had walked near the camp. During boating exercises students were responsible for tracking trips with the GPS. Students also learned how to download GPS data into the mapping software package.

Students learned how to map read by determining and using coordinates of latitude and longitude on a map. Students also learned the basics of compass reading. On the last day of camp they used their combined compass and GPS skills to complete an orienteering course around the southern end of the lake.

Students learn how to read coordinates from a map and find locations on the map



Students learn how to program a GPS

Navigation & Orienteering

Students learning how to use a compass



Mapped student trails around the camp determined by the GPS and plotted with Ozi Explorer software on a laptop computer.

Students leaving for an orienteering course



Radio Telemetry

Nic taught the students how very high frequency (VHF) and satellite radio collars worked. He discussed how and why wildlife researchers use the different types of collars. He also discussed the different methods of live capturing wildlife in order to deploy radio collars on animals. As a practical exercise students used a receiver, and hand-held antennas around camp to locate hidden VHF collars.



Two VHF breakaway collars for bison calves, a hand-held "H" antenna and a teardrop design satellite collar for caribou

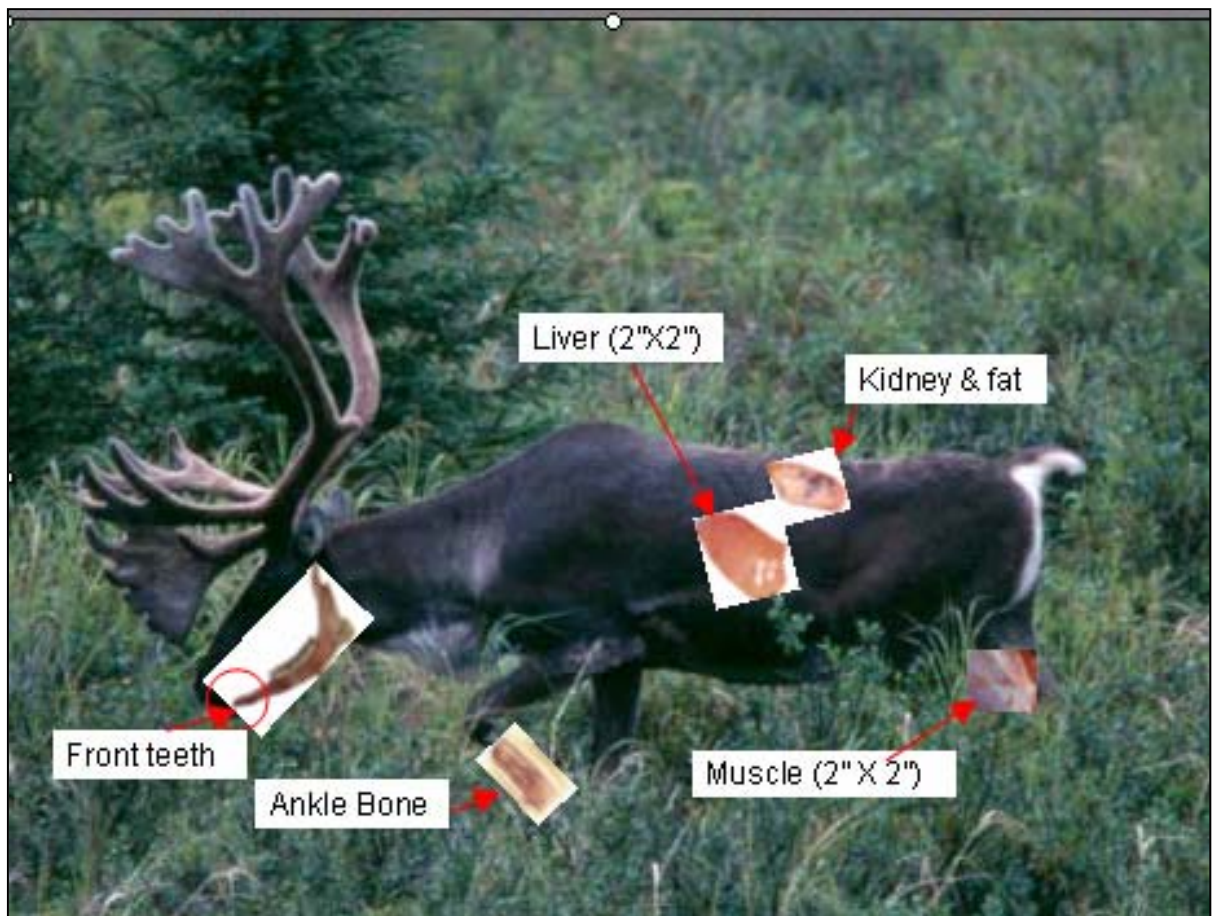
Nic explains to the students how a VHF collar works and how it is useful in wildlife research



Students searching for a VHF collar with the receiver and hand-held antenna

Biological Sampling

We discussed the reasons for collecting a variety of biological samples from animals, like what can learn from a tooth or a kidney. The samples that are collected from an animal depend upon the question that we want answered. We used as an example the types of biological samples that would need to be collected if one was interested in studying heavy metal contaminants of country foods, specifically caribou.



Forestry

The students learned about forest inventory methods and the use of specialized equipment. They measured the diameter breast height (DBH), estimated tree heights with a clinometer, as well as taking tree cores to estimate the age of the trees. The age of the trees was calculated by using a microscope to count the annuli of each tree core. Afterwards we discussed the succession of the forest based upon the forest stand characteristics that we measured. The students found it quite interesting and eagerly participated in all the practical exercises.

Aging trees using a borer

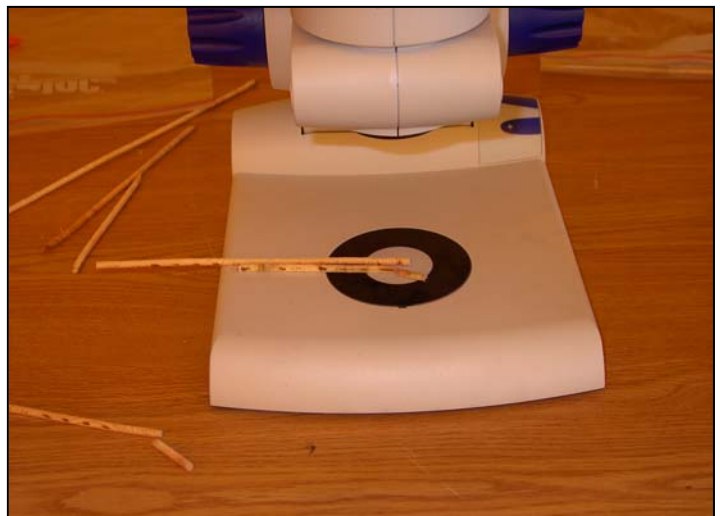


Forestry

Students using a clinometer for estimating tree height and measuring diameter breast height (DBH) of each tree



Using a microscope to see the annuli of the tree more clearly so the age of the tree can be estimated



Plant Collecting & Identification

The students collected plants during an hour-long hike from the camp to the Trout Lake fire tower and during a boating trip along the shore to the fishing lodge. They were provided with an RWED booklet "Wild and wacky plants of the NWT" which helped with plant identification in addition to the traditional and scientific knowledge of the instructors. Students were taught about the different characteristics that are used for identifying plants using a scientific key. Most of the plants collected were dried in a plant press for proper mounting.



Students went boating on the lake in search of plants that they later identified and dried for a plant collection



Jessica getting plant identification displays ready



Tower man climbing the Trout Lake tower

Fire Fighting & Equipment

The students watched presentations designed by Daniel Allaire (RWED Forest Technician) and learned about fire theory, how to make initial smoke messages, the principles behind a fire triangle and the duties of a duty officer. The students were shown a video called "Out of the Ashes" to provide an idea of how fire operations evolve during the fire season. All of the students were provided with fire fighting safety gear - steel toe boots, goggles, coveralls, hard hats and gloves. Students were given hands-on experience with fire equipment including the use of equipment in an initial attack kit, handling a water-filled (or charged) fire hose, strangling a charged hose with a hose strangler and changing nozzle tips while using the hose. Students took turns flying by helicopter to an active fire that was near the Trout Lake base camp.



Danny explains to the students the fire equipment in an initial attack kit.

Students learn how to fill up piss pumps that are generally used by emergency fire fighters (EFF's)



Fire Fighting & Equipment

Students learn how to use a hose strangler and feel the pressure of a fully charged fire hose



Students were flown out to see an active fire near the base camp



Community Feast & Drum Dance

On the last day of the camp a community feast and drum dance to celebrate the conclusion of a successful ecology camp was held in the community of Trout Lake. The function was well attended by local residents and camp participants. Although mother nature forced adaptation on students, staff and residents of Trout Lake at the beginning, the 2003 ecology camp was a definite success. The elders, local staff and fire crews played an integral role in its success as did the good group of students from throughout the Deh Cho region; they wholeheartedly participated in and became involved with all of the different experiences provided to them during the camp.



Trout Lake residents
volunteered to help
prepare the feast

The drum dance was a lot of fun
and a lot of people came out to
celebrate the closing of a
successful 2003 ecology camp



Community Feast & Drum Dance

The hall was decorated, the feast was plentiful and well attended by local residents and ecology camp participants



We thank the local residents of Trout Lake and the following agencies who provided funding because without them the camp would not have been achieved: the Cumulative Impact Monitoring Program Government of Canada (CIMP), Deh Cho First Nations (DCFN), and Resources, Wildlife and Economic Development (RWED), Forest Management, Fire Operations and Wildlife Government of Northwest Territories. We hope this is the first of many summer ecology camps in the Deh Cho.