
Endangered Wildlife, First Nations, and Recreation Education on a Mountain

LORA HARGREAVES

Grouse Mountain Resorts, 6400 Nancy Greene Way, North Vancouver, BC, V7R 4K9, Canada, email lhargreaves@grousemountain.com

Abstract: The Grouse Mountain Refuge for Endangered Wildlife is one of Canada's newest and most unique conservation centers. It is a wildlife refuge located within a historical ski resort, and is a 15 minute drive from beautiful downtown Vancouver, British Columbia—Canada's third largest city. Located on over 500 hectares of privately-owned mountaintop property and accessible only by aerial tram, the refuge serves a local area population of over 400,000 school children. The mission of the refuge is to be a world leader in the preservation of endangered species through the use of wildlife management and breeding programs, conservation initiatives, imperiled flora and fauna study and research programs, and leading edge public education and interpretive programs. Education programs feature wildlife species at risk, aboriginal culture, and outdoor recreation. The first education initiative was to develop school programs that

- are based on current educational theories;
- are specific to the local public school curriculum;
- create an awareness about British Columbia's indigenous wildlife species at risk;
- increase the curricular time teachers spend on local wildlife issues;
- provide sufficient supporting information and lesson ideas;
- encourage repeat visitors; and
- integrate with the existing facility infrastructure.

The resulting educational program is an innovative three-part experience that combines an interactive wildlife education theatre presentation, a First Nations' cultural experience, and an inspirational visit to the refuge's innovative natural terrain grizzly bear (*Ursus arctos*) habitat.

Key Words: education, First Nations, grizzly bear, *Ursus arctos*, *Ursus arctos horribilis*¹, curriculum, teachers, species at risk, wildlife

¹NatureServe Explorer (version 4.0, July 2004) lists *Ursus arctos* as the brown bear, and *Ursus arctos horribilis* as the grizzly bear.

Grouse Mountain Adventures in Education Program

With a local community of over two million people just minutes from its doorstep in Vancouver, British Columbia (B.C.), Grouse Mountain Resort celebrates a remarkable mix of wilderness and civilization. The resort has successfully developed its role as an ambassador to its natural surroundings, and as an educator of local school children.

The Grouse Mountain Refuge for Endangered Wildlife is a bold conservation initiative that began in July 2001. The first inhabitants of the refuge were two orphaned grizzly bear cubs, and studies are currently underway to develop a protocol to release future orphaned cubs back into the wild. The mission of the refuge is to be a world leader in the preservation of species at risk through the use of wildlife management and breeding programs, conservation initiatives, imperiled flora and fauna study and research programs, and leading edge education and interpretive programs. The education programs are critical to the success of the refuge.

Grouse Mountain established its Adventures in Education program in January 2002, affording eager students unforgettable encounters with orphaned grizzly bear cubs, First Nations cultural experiences, and activity-based outdoor education. Designed to enhance the curriculum of our local school system, the grade-specific programs of Adventures in Education were custom designed by an on-staff professional educator who has extensive experience as a high school biology teacher. The objectives of Adventures in Education are to

- provide a unique and innovative field trip opportunity;
- increase B.C. teachers' awareness of Canada's wildlife;
- increase the amount of time teachers spend teaching about Canada's wildlife in their classrooms; and
- support teachers in teaching about issues related to Canada's wildlife.

Provincial curriculum, developmental, and age appropriate considerations resulted in the design and implementation of five specific educational programs that combine wildlife education, and First Nations' culture into a full day field trip atop Grouse Mountain. A typical day includes the following:

Skyride to Mountaintop

This unique tram experience whisks students from the city to the wilderness.

Wildlife Presentation and Interaction with Wildlife

These presentations are designed to introduce students and teachers to concepts within the provincial curriculum using Canadian and, more specifically, B.C. wildlife. The presentations include:

Biological Artifacts: a hands-on activity where students discover the similarities and differences among a variety of wildlife artifacts (e.g., skulls)

Curriculum Presentation: an interactive presentation focusing on issues related to B.C.'s wildlife.

Programs include:

- Living Organisms: outlines the living requirements of plants and animals
- Bears of Canada: illustrates the similarities and differences among polar bears, grizzly bears, and black bears
- Animals and Adaptations: uses select B.C. species to introduce the concept of adaptations (e.g., camouflage, foraging, and defence)
- Endangered Species: outlines the fate of B.C.'s most endangered species, the Vancouver Island marmot, Oregon spotted frog, and northern spotted owl
- Grouse Mountain Ecosystem: demonstrates the interrelatedness of a representative sample of wildlife species found on Grouse Mountain

Grizzly Bear Interpretive Session

The visit to the orphaned grizzly bear habitat provides students with an intimate overview of a leading edge wildlife rehabilitation project. Students are escorted to the grizzly bear habitat where they learn about the resident orphaned bears, grizzly bears in general, and the overall goal of releasing future orphaned cubs back into the wild.

First Nations Cultural Experiences

The First Nations experience introduces the students to the 'first conservationists', and to the value First Nations people place on wildlife. Students learn about First Nations' use of legends to teach their youth, clan identities to describe their family relations, and songs that symbolize characteristics of wildlife species.

The Adventures in Education programs were designed to address a lack of awareness among our local and visiting populations about the plight of B.C. and Canadian wildlife. Before participating in our programs, children and adults alike are generally unaware of how many species are classified as endangered or threatened, and are unaware of the human interference that has caused the species' endangered or threatened status. Adventures in Education addresses these concerns by providing engaging and interactive educational programs.

Within the school system, teachers who have an interest in wildlife and conservation issues are often 'forced' to focus on species that are not native to Canada (e.g., pandas, tigers) due to the lack of available resources on Canadian wildlife, and to the abundance of information on the more 'popular' exotic wildlife species. All of our Adventures in Education school programs are

supplemented with curriculum support material to encourage teachers to supplement their educational experience on Grouse Mountain with activities back in their classroom. Ideally, more instructional time will be spent using B.C./Canadian wildlife as a medium to cover all subjects ranging from art projects to math problems and writing assignments.

The Adventures in Education program educated nearly 22,000 students in the first two years following its inception. Teachers' responses to the program have been extremely positive. An example of their feedback includes the following:

- "The field trip was one of the most valuable trips I have had with my children. I commend the thought and organization that has gone into preparing this experience for young children" (Barbara McBride, Tillicum Elementary)
- "The program covered some species which we had not covered in class, however, that empowered us to want to learn more about them." (Stephanie Norris, Sunrise Ridge Elementary)
- "I would recommend this program to my colleagues. As a teacher, we have the power of impacting on our students the necessity of protecting endangered species in B.C." (Karen Henney, Eastview Elementary)
- "My class is very excited about saving the endangered wildlife. They are making posters to display in the school to create awareness about the issue." (Sharon Skibinski, Garibaldi Elementary)

In a formal evaluation of the Adventures in Education program, participating students commented that they:

- loved the interaction with wildlife and the opportunity to view the orphaned bears in their natural habitat;
- would recommend this experience to a friend;
- would love to come again; and
- could remember wildlife information that was included in the program. The majority of students in the focus groups were able to identify concrete ways in which they could personally help endangered species.