



BC

Grasslands

"The voice for grasslands in British Columbia"

OCTOBER 2004



A Balancing Act

Sustainable recreation in BC's grasslands

The Grasslands Conservation Council of British Columbia

Established as a society in August 1999 and subsequently as a registered charity on December 21, 2001, the Grasslands Conservation Council of British Columbia (GCC) is a strategic alliance of organizations and individuals, including government, range management specialists, ranchers, agrologists, grassland ecologists, First Nations, environmental groups, recreationists and grassland enthusiasts. This diverse group shares a common commitment to education, conservation and stewardship of British Columbia's grasslands.

The GCC Mission is to:

- Foster greater understanding and appreciation for the ecological, social, economic and cultural importance of grasslands throughout BC;
- Promote stewardship and sustainable management practices that will ensure the long-term health of BC's grasslands;
- Promote the conservation of representative grassland ecosystems, species at risk and their habitats.

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COVER PHOTO BY SEAN JENKINS

A mountain biker enjoying the terrain near Kamloops, BC

Message from the Chair

Maurice Hansen



Stay Off the Grass

The issues surrounding use of grasslands for mechanized recreation are something I've just had a close encounter with. The Ministry of Sustainable Resource Management (MSRM) undertook to establish a recreational Access Management Strategy here in the East Kootenay. MSRM convened a stakeholders negotiating process and the game was on. It went on for two years. The sectors soon settled into two distinct groups: motorized vs. non-motorized. In this jurisdiction quads and motorbikes have been almost completely free to go where they please. Alberta has enacted restrictions and in Montana you can ride a quad only on roads marked as accessible. If marked otherwise, no motors allowed regardless of the surface; the penalty is confiscation of the machine. And so riders from Alberta and Montana have pushed into the last bulwark of the land of the free, British Columbia.

Accepting restrictions was a bitter pill for many of the local motorized riders. The engagement with their opponents, intent on restricting them, isn't over yet, but it is a ways down a pretty bumpy road.

It's no news that motorized recreationists aren't all alike. There are two general categories: those who enjoy the outdoors for itself and those who want to shred it by the application of motive power to wheels. About the only solution for this latter group is to identify sacrifice areas.

A partial agreement was reached and the process will continue to grind away on the sticky parts. For example, cows have been targeted by the motorized riders as more culpable than quads for damage to grasslands and they want a chance to prove it. They want access privileges

equal to those of cows. This notion might have merit; to gain free access privilege to grasslands, all motorized riders could be branded, brisket-tagged, ear notched and herded thru a rest-rotation access plan. I'd recommend using low-stress handling techniques on humanitarian grounds.

But to be serious, Pogo said, "I have seen the enemy and he is us". The motorized/non-motorized dichotomy is only a symptom of a vexatious larger issue. With each advance of population, technology and "development" (a nasty euphemism) the human footprint leaves a larger imprint on the face of the planet, especially the favoured parts like grasslands. Access management is important because it might make some reduction in the rate of growth of that foot. But the leviathan called civilization keeps walking, regardless.

It may be that having the motor powered riders engaged in land use planning is the most important benefit for grasslands that is to be gained from the access management exercise. Perhaps the appreciation of wild country and open spaces will form the glue that could join all sides of this issue into common cause. The fundamental treasure to be gained is the unencumbered landscape. And it's just possible that enough motor powered recreationists can learn to recognize grasslands as a fountain of energy that flows from and through the soils, plants and animals found there. And from there a widespread land conservation ethic would be born. Am I a dreamer? Perhaps. But let's introduce the dream and until it bears fruit, devise a suitable punishment for machine riders that go off road in grasslands. We could stay with the cow as a model. We all know what happens to them as a consequence of their off road use of grasslands.

Message from the Executive Director

Bruno Delesalle



Collaborative Environmentalism

"Only if people, through government, can cooperate in informed, collective, firm self-discipline, can they overcome threats to the integrity of the biosphere."
(Caldwell, 1990)

After nearly six years with the Grasslands Conservation Council of British Columbia (GCC), I thought it would be interesting to reflect back on my graduate research and relate what the GCC is doing as a provincial grassland conservation organization to an extensive body of theory

on the role of environmental non-government organizations.

Over 15 years ago when I started my research on the "Role on Environmental Non-Government Organizations in Wetland Conservation" my goal was to better understand how non-profit organizations effectively deliver on conservation initiatives to protect endangered ecosystems. As I searched the extensive literature on this subject, I learned about the theory of environmentalism and about non-profits and their impacts on conservation and stewardship. This subject still fascinates me today as I ponder many of the same questions... what constitutes

effective environmentalism? I hope to bring some perspective to this important question.

Environmental non-government organizations, or ENGOs ultimately play three key roles. The first role is advocacy. Advocacy is generally defined as watching and scrutinizing government and industry to ensure compliance with environmental protection standards, regulations and policies; pressuring governments to maintain an adequate level of environmental protection and accountability while possibly expanding government consideration of environmental factors; and finally, informing government, communities and the general public about environmental issues and ecological values. As advocates for conservation, ENGOs pressure governments to broaden their view of land use and environmental issues to assure more informed decision making, and ensure ecological integrity is not neglected as a result of poor planning and decision making.

The second is a “supplemental” role. An ENGO can supplement the regular roles and responsibilities of government, filling-in where government is unable or unwilling to fulfill its mandate and responsibilities to environmental conservation or where these activities are better performed by an ENGO. The supplemental role also includes performing activities that are not expected of government, as they fall beyond the scope of jurisdiction and responsibility of government. Partnerships may be established with government to fulfill these activities as they are complementary and mutually beneficial.

A secondary aspect to the supplementary role is one of legitimizing government planning and decision making through direct participation in these processes, providing and reviewing information, and providing viable options and solutions. It is the function of supplementing, and “adding to” through partnerships and collaboration that I coin as “collaborative environmentalism.”

The third is a “transformative” role. The transformative role is characterized by activities that aim to fundamentally restructure the institutional system and transform the way society thinks and operates. These more dramatic paradigm shifts are sought through protest, civil disobedience, demonstration and education.

Awareness of environmental degradation and the need for conservation is not new. Ecologists such as George Marsh warned of alarming trends in the way humans used natural resources in the mid-1800s. Since the 1800s, a myriad of scientific discoveries, gained knowledge and understanding about natural systems and the numerous waves of environmental awareness and activism has resulted in a change in the way society operates. Society is more aware about conservation issues today than 20 years ago. However, some may argue that little has fundamentally changed. Society, governments and economic systems in general still function with principles that are far removed from the realities of the natural environment. Operating within recognized biophysical realities and maintaining ecological integrity as a basis for planning and decision-making has not yet become a cornerstone to human socio-economic and institutional systems.

Environmental organizations serve as pervasive and necessary links in the processes of communication that bind government and people. (Pross, 1975)

While today’s planning and policy initiatives are rapidly evolving, governments and industry are encountering challenges in protecting endangered ecosystems and landscapes such as grasslands. Shrinking financial resources, a lack of clear policy and priorities for protection of grasslands, fragmentation of jurisdictional powers and institutional mechanisms for the protection of these endangered ecosystems, and poor integration and communication between government agencies is frustrating much needed and effective progress.

Organizations such as the GCC are addressing these challenges. The GCC is neither a hard core advocacy group nor a group that specializes in protest, civil disobedience and

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Mountain Biking meets Grasslands

Ken Johansson, Nature Park Technician, City of Kamloops

Free rider coming off a drop near Kamloops.

PHOTO COURTESY OF KAREN PARKER



The wind raking past your ears filling in every gap in your wake, your heart beating as if it is about to explode out of your chest and your thighs burning, begging you to stop. As you pedal faster you see a seemingly endless blur of grass spotted with intermittent sagebrush fly by as you speed down a razor thin single track through the glacier formed hoodoos. This is a common image of mountain biking meeting grasslands on any summer day around the city of Kamloops. With its abundant trails, great terrain, favourable weather and influence from internationally renowned mountain bike riders, Kamloops is, according to some of the top mountain bike magazines, one of the best freeriding locations in the world.

As with many other sports, mountain biking has evolved into a multi-disciplinary activity with a variety of genres, one of which is freeriding. Freeriding, by definition, takes place on a flowing single track trail with technical trail features such as jumps, berms, gaps, drops and ladder bridges along its path. This is one of the fastest growing of any of the mountain biking genres and is also the one with the most potential to damage the environment that sustains it.

One of the first and foremost conundrums of this relatively new aspect of mountain biking is that it takes place on unsanctioned areas such as private property or property that is not defined for this extreme type of use. Given the inherent risk that these riders assume as they speed over jumps and ladder bridges, the landowner, whether private or a level of government, assumes a significant liability as a result.

The second problem is environmental impact. Mountain biking, like most other outdoor recreational activities, impacts the environment; freeriding, perhaps more so. On one of the more popular freeriding trails in Kamloops one can see very poor trail design leading to dramatic erosion of the gully in which it is situated; poorly built structures posing a significant danger to the riders; and ladder bridges and various other structures nailed to trees which will likely cause the trees to die and eventually lead to slope instability.

In the fall of 2002 these issues came to a forefront among local landowners, environmentalists, mountain bikers and City of Kamloops officials. The solution to the problem was to find a place to practise freeriding while protecting the interests of the landowners and the environment; thus the genesis of the Kamloops Mountain Bike Park. The potential of building such a park reignited the flame of the Kamloops Mountain Bike Association, which in turn set in motion a “land stewardship approach” to resolving this freeriding dilemma. Using this approach the City of Kamloops would be responsible for the overall administration of the park and the Kamloops Mountain Bike Association would be expected to design, construct and maintain all the trails and features within the park as well as contribute monetarily through a 50/50 cost share split with the City.

Prior to any of the partnerships being formed however, a suitable location had to be found to house this mountain biking marvel. The location had to meet a number of criteria such as slope, elevation change, road access, ownership by the City of Kamloops and environmental suitability, just to name a few. A location was eventually found and agreed upon by both the City of Kamloops and the Kamloops Mountain Bike Association. The location is an area between two communities within the city that at one time functioned as a landfill and consists of the typical Kamloops hoodoos bounded by grasslands and sagebrush. The fact that a portion of this site was an old landfill is of particular interest in that it aligns with a main planning principle to build on and improve what already exists rather than disturb a virgin area.

“It is enlightening to see how an initiative such as the Kamloops Mountain Bike Park can bring together groups of people not only for the betterment of sport but also for the betterment of our grasslands.”

Once the idea of a mountain bike park and a location for it was established, an open house was conducted on September 25, 2003 by the Kamloops Mountain Bike Park design and planning committee, which consisted of City of Kamloops officials and members of the Kamloops Mountain Bike Association. This open house was attended by over 250 people and 210 questionnaires were returned with a 98% in favour response. Given such an overwhelming positive response, a management plan for the park was then written by the committee. The plan outlines how the park will be developed, the natural resource issues to be addressed, how the park will be managed and, most importantly, the goals and objectives of the park.

Out of the goals and objectives comes the vision statement for the Kamloops Mountain Bike Park: “To provide Kamloops with a cutting-edge, premier mountain bike facility.” The premise behind this statement is the core planning principle designed to solve the initial problems outlined above: to build a facility that will be unmatched by any unsanctioned or sanctioned riding area with enough variability to continually challenge the riders so they will not become bored and return to environmentally sensitive or privately owned areas.

Some of the other goals and objectives outlined in the park management plan are:

- Recreation: “To design a world class facility that provides a variety of mountain bike opportunities with varying degrees of difficulty and continually evolving features.”
- Environment: “Protect the integrity of the natural environment.” This plan also recommended the extension of Valleyview Recreation Centre Park from 46 to 80 hectares.
- Tournament Capital Initiative: “Supporting the Tournament Capital initiative through sports promotion, tournament hosting, and increasing Kamloops’ profile on the mountain biking scene.”

The construction of the Kamloops Mountain Bike Park is scheduled to begin in the summer of 2005 and continue through a series of three stages until completion. The dates for the second and third phases of construction will be dependent on park use and budget allocation.

Freeriding is a sport that has sometimes been dubbed a mountain biking subculture by those who see trails and technical features being built seemingly under the cover of darkness in unsanctioned areas; it is enlightening to see how an initiative such as the Kamloops Mountain Bike Park and its subsequent planning process can bring together groups of people not only for the betterment of the sport but also for the betterment of our grasslands. It is this type of attitude and passion that makes Kamloops such a great place to live, ride and appreciate our natural environment.

Ken Johansson lives in Kamloops where he is a Nature Park Technician with the City of Kamloops, a mountain biker, a black belt and a soon to be master of GIS.

Big sagebrush and ponderosa pine are familiar sites to those riding around Kamloops. PHOTO COURTESY OF KAREN PARKER



Solutions for a Sustainable Future

Land Use and ORV Management in BC

Taylor Zeeg, Stewardship Program Co-ordinator, Grasslands Conservation Council of British Columbia

Sales of off road vehicles (ORVs) in BC are growing in leaps and bounds. With approximately 150,000 ORVs in BC and sales increases of 230% in seven years, the sport is rapidly gaining popularity. Yet this dramatic increase in unit sales unaccompanied by the necessary policy tools and management strategy to ensure the realization of conservation values presents a significant challenge for land use managers and conservation interests alike.

Across BC, motorized recreation clubs want to implement and administer management programs to help grow their sport, land managers need tools to effectively implement and monitor land use management plans, and authorities and landowners need to be able to identify machines riding in prohibited areas. But unlike most Canadian jurisdictions, British Columbia is lacking regulatory and effective management tools to help steward and promote responsible off road vehicle recreational activity.

So how as grassland conservationists are we to deal with this growing pressure on fragile grassland landscapes? How are we to work with recreation groups, industry and other non-government organizations to achieve our conservation objectives? Recognizing grasslands as a desirable landscape for recreating, how do we insure the primacy of conservation and stewardship?

I would suggest it begins with a balance of mutual respect, effective regulatory tools and user-driven management initiatives.

A good management strategy would dovetail with existing and future land use planning initiatives. Through various land use planning processes (i.e. Land and Resource Management Plans, Recreation Management Plans, Sustainable Resource Management Plans), government and local stakeholders designate areas of land for specific uses. Designating areas for recreational activity increases recreation opportunities, decreases user-conflicts and helps to reduce impacts to wildlife.

The problem is that without any effective means to identify and address off road vehicle activity in areas designated for non-ORV uses, or areas under commercial recreation tenure,

little can be done to ensure the designated area is kept free from ORV impacts. The unfortunate consequence is a significantly impaired land use planning process and the resultant pressure on government land managers to issue closures.

This leads to another key element of an effective overall management strategy: the need for adequate regulatory tools to support the land use planning framework. Currently there are few effective legal mechanisms for enforcing land use designations arrived at via land use planning processes. The negative effect of this is twofold: user-conflicts escalate, undermining the outcomes of the land use planning process; and the natural attributes of an area, be they natural resources or ecological integrity, are diminished. Land managers do have provisions under the Wildlife Act, the Land Act, and the Forest and Range Practices Act, yet regulations under these statutes have specific application and/or lack the latitude and legal integrity to address user-conflict, general impacts to land, and transgression of designated area agreement. The various land use plans either completed or currently underway in British Columbia are good mechanisms for achieving consensus on land use, yet government managers and other stakeholders lack the means to maximize the utility of the plans with regards to motorized recreation use.

In the absence of licensing and registration, little can be done to insure the observance of designated and non-designated areas and/or encourage voluntary compliance. Because there are no means to identify and educate riders and/or disseminate pertinent information on access issues, land use managers are rendered powerless. The same challenge applies to private lands: landowners have no means to identify and address riders on their private land. The absence of a management strategy that includes visible license plates or decals will continue to be a burr in the saddle of all landowners and stakeholders that work and play within BC.

An effective management strategy begins with a means to identify ORV riders, track ORV activity, and promote responsible recreation and user-driven management. Furthermore, a good

strategy will be economically self-sustaining and provide funds for the off road vehicle clubs themselves to administer management programs including safety, education, enforcement and compliance, responsible trail development and conservation and stewardship initiatives. A user-driven management program and visible license plates or decals, in conjunction with effective stakeholder-driven land use management plans is a win-win scenario for all those who value BC's grasslands, wetlands and alpine areas.

We can look to New Brunswick for one example of a model that endeavours to promote responsible recreation while still achieving conservation and stewardship objectives.

New Brunswick recently amended legislation that regulates off road vehicle use. The amended legislation enables the return of a portion of the ORV registration and licensing fees to the motorized user groups to administer a range of management programs that include responsible trail development, and educational and prevention initiatives to address concerns such as safety, environmental impacts and enforcement challenges. A multi-stakeholder advisory board ensures the monies are spent in accordance with the purposes set out in the amended statute. Moreover, mandatory visible licensing provides the mechanism to identify ORV use on prohibited public and private lands, satisfying the common and recurring concerns of land managers and private landowners in the province. The new legislation was a response to the recommendations of the All-Terrain Vehicle Task Force Report, and the culmination of nearly 3 years of government and stakeholder-driven investigation into the issues and impacts pertaining to off road vehicle use.

A similar process, albeit a process that has been driven from the ground up, rather than from government down, is well underway in British Columbia. Since November 2002, the Coalition for Licensing and Registration of Off Road Vehicles has been developing options and solutions within the BC context. The Coalition – a broad-based alliance of motorized recreation interests, conservation organizations, and

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Grassland Recreation in British Columbia

Norma Wilson, Executive Director, Outdoor Recreation Council of BC

Grasslands in British Columbia provide a unique recreational opportunity in a province known for its mountainous terrain. They provide gently rolling landscapes that are easily accessible to recreationists with a wide range of skill levels, and the few trees allow open vistas, providing another attractive feature. For those who enjoy nature study, the opportunity to view endangered species in their natural habitat is an added bonus. In addition to the gentle landscape and great views, the weather is generally drier in the areas with grasslands. A camping trip in the grasslands rarely gets rained out!

British Columbians are avid outdoor recreationists. We like to spend time in the outdoors, and we often participate in several different types of recreational activities. We like to have high quality opportunities close to home so that we can engage in a few hours of recreation. We also like to be able to travel a few hours to a weekend destination. These conditions all point to grasslands as likely landscapes for recreation. The heavily populated Thompson and Okanagan valleys have grasslands that are easily accessible by residents for a trip of a few hours or a few days. The grasslands are also within a few hours drive of the Lower Mainland, making them accessible to a large population for weekend (or longer) recreational trips.

The romantic notion of the ranching life has been well marketed by provincial tourism agencies, and draws visitors and BC residents to the grasslands. The idea of riding horseback for days on end has led to several tourist cattle drives which contribute significantly to local economies. Recreational horse riders enjoy similar rides, although often without the cattle! For horses, grasslands provide snacks along the way – a definite bonus.

Because of their open and gently rolling nature, grasslands lend themselves to a variety of motorized activities. Riders of varying skill levels can safely pursue a day of recreation in an attractive landscape.

Besides providing a unique, high quality recreational opportunity, grasslands are also sensitive and easily damaged. Many of the plants and



Hikers in the Junction Sheep Range. PHOTO COURTESY OF BC PARKS

animals that live in grasslands cannot live in other habitats, and so when grasslands are damaged, the plants and animals decline in population. Are there ways in which grasslands can be used for recreation, and yet maintain their health and unique character? Certainly there are. As recreationists, we must realize that our activities will always have an impact on the landscape, and some landscapes are more sensitive than others. We need to decide amongst ourselves how we can alter our activities and thus maintain access to the widest range of opportunities. We also need to keep in mind that we share this landscape with many other users, from ranchers to commercial tourism operators. The full range of users needs to be part of the solution.

Norma has been with the Outdoor Recreation Council of BC for over 10 years. She joined ORC after completing her master's degree in resource planning from UBC. Prior to returning to UBC, she was a mineral exploration geologist. She is currently working on a PhD in recreation policy.

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industry – is a grassroots, user-driven initiative that will provide government with a cost effective and sustainable solution for the licensing and registration of all ORVs in BC, including an effective management strategy.

The Coalition is now fully engaged with the BC government's "ATV – Interagency Policy Committee (ATV-IAPC)" – an ad hoc committee working under the direction of the Deputy Minister's Committee on Environment and Resource Development – on developing options and solutions for British Columbia.

Instilling grassland conservation values

amongst motorized recreation riders is the start. This is where education, awareness, shared experience and collaboration comes in. One of the value added features of stakeholder driven initiatives such as those in New Brunswick and BC are that a range of interests are conducting solution-oriented conversations and coming up with innovative and creative options for better management of off road vehicle recreation that serve the spectrum of public interests. This is built in value and the kind that lasts for generations, or at least as long as we continue to have those conversations.

To learn more about the Coalition for Licensing and Registration of Off Road Vehicles, please refer to page 22 of this issue of BC Grasslands magazine.

As Stewardship Program Co-ordinator, Taylor coordinates several policy, stewardship, and land use planning-related projects with the ultimate goal of influencing land use planning for grassland conservation. He is a provisional member of the Canadian Institute of Planners. He can be reached at (250) 374-5787 or taylor.zeeq@bcgrasslands.org.

Naturalists Afoot in the Grasslands

Rick Howie, R.P.Bio., Aspen Park Consulting; Eva Durance, Consulting Biologist; Anthea Bryan, R.P.Bio.

Amongst all of the groups who might cause ecological damage on grasslands, those of us who call ourselves naturalists perhaps feel least to blame. We espouse a protectionist philosophy and only wish to enjoy the freedom of the hills and the beautiful species inhabiting them.

While we may not cause widespread ecological damage akin to subdivision of grasslands into tiny parcels, outright destruction, or kilometres of eroding wheel ruts, as visitors to these sensitive ecosystems, we share a collective responsibility to consider how our activities may contribute to the cumulative effect of all users. Minor infractions can become major – one person stepping off a trail will likely do little harm, but let a dozen or more do so and plants can be destroyed. Conversely, an accumulation of visitors avoiding damage could significantly reduce human pressures on these fragile areas.

Since we tend to undervalue what we do not know, wise human use of grasslands is often cited as one way to ensure these lands' ecological viability. It would be sad to feel that naturalists should not use grasslands for recreation. What then are some possible impacts and how

“Since we tend to undervalue what we do not know, wise human use of grasslands is often cited as one way to ensure these lands' ecological viability.”

can we lessen them?

Recognize first that not all grasslands are the same. Within the Thompson–Okanagan area, soil type and depth, vegetation, slope and aspect can vary greatly. If you were to wander on foot across stands of bluebunch wheatgrass or Idaho fescue near Kamloops on a dry summer day,

your passage might be unnoticeable. However, climb a steep, sandy slope above the east side of Skaha Lake, for example, and watch your boots sink deep, dislodging cactus and burying fragile grass stems with every step. Take a group up and down the same slope and the damage will be visible for some seasons to come. Learning to recognize and avoid particularly sensitive areas within the grasslands, like these soft-soiled hillsides, will help leave them unscarred.

Seasonal changes are important too. Cross a sparsely vegetated bunchgrass slope near Kamloops in early spring when the silty soils are still wet, and you will find that your footsteps are apparent. The soil will slide and plants may be displaced, exposing bare ground to weed seeds in the mud on your boots. The best practice here would be to stay away until the ground dries; failing that, keep to roads and established trails.

Weeds seem almost impossible to escape these days. How many of us have inadvertently wandered through a patch of burdock or houndstongue (beggarticks) and decided to remove those sticky little hitchhikers on the spot, or worse, where there may not be weeds? Seeds and plant parts should be removed from clothes, shoes, pets and equipment after a grassland excursion. Bagging and depositing seeds in the garbage, or burning them, will avoid spreading them further.

Many of us enjoy teaching others, particularly children, about nature's wonders. This is laudable, but such excursions need careful planning. The South Okanagan's annual Meadowlark Festival, with its dozens of field trips, is a case in point, especially as it is held when birds are nesting, young mammals are around, and many plants are blooming. The organizers take great care to minimize impacts. Naturalists can help avoid damage by restricting numbers to suit the type and sensitivity of the terrain and giving participants clear directions on what constitutes appropriate behaviour and why.

The impacts of some activities may not be so obvious. Photography seems pretty benign. However, damage can be done if the photographer walks around at random seeking the perfect angle. Crushing vegetation or removing

neighbouring plants to get a clear shot at one can leave an unwanted legacy.

And what about grasslands wildlife? Sharp-tailed grouse are one of the rarer resident birds in BC. Seeing one is the dream of many bird-watchers, particularly the rare opportunity to watch them displaying as part of their courtship at a traditional lek. Unfortunately, declining populations and relatively few known leks have resulted in sites being kept secret for fear that repeated disturbances could lead to abandonment or reduced breeding success. It is important to avoid disturbance of wildlife at leks, known breeding and denning areas, salt licks, and migration routes for amphibians and other animals.

Popular wildlife viewing areas receive high numbers of visitors. Birders in particular have 'hot spots' which get the bulk of visits. Such repeat visits can disturb wildlife to the point that some individuals may abandon a nest or young, or not breed at all. The use of tapes to attract birds can also cause harmful disturbance. Such practices have been banned in some American National Parks.

Dogs can disturb grassland wildlife if we let our pets explore wildly across the landscape. Bighorn sheep and other mammals can be harassed or even killed. Ground-nesting birds can be flushed off their eggs, and if your dog happens to find the nest, but does not damage it, a coyote may later just follow the scent trail there. The nest will very possibly be predated. Dogs should be under control at all times.

Just how important are these kind of impacts? Statistics may not be widely available but we can all help reduce our footprint on the environment. For an in-depth discussion of this topic, and to see how user groups are working together, please refer to the document Best Management Practices for Recreational Activities on Grasslands in the Thompson and Okanagan Basins (2004 – website).

While we pass through the grasslands listening to a meadowlark's joyful song, we might do well to ponder our steps to determine just how we might tread lightly on the land and take nothing but pictures while leaving the gentlest of footprints.

Recreation Management on First Nations' Land

Warren Fortier, Forestry Assistant, Shuswap Nation Tribal Council



Mountain biking can cause erosion and the spread of invasive plants such as knapweed. PHOTO COURTESY KRISTI IVERSON

Grasslands have been impacted immeasurably by the province's fire suppression mandate and overuse by livestock. A host of activities, including recreational biking, have augmented this disturbance and have the potential to create adverse or irreparable damage to sensitive areas within the grassland ecosystem.

Riparian zones within the grassland ecosystem can be disturbed and damaged by overuse. These sensitive zones are key habitat areas for species that are listed in the Species At Risk Act (SARA) and require absolute protection from anything that might jeopardize their livelihood.

This article represents a brief summary of informal interviews that were conducted with various individuals in the Kamloops area. These individuals have many common concerns, the foremost of

which was the protection of sensitive grassland ecosystems and species at risk.

Several people expressed a concern over the impacts of any recreation, even so-called ecotourism, on grasslands. They stressed the importance of protecting the integrity of the grassland ecosystem and the inability to restore grasslands to their natural condition after damage occurs. In order to ensure that impacts are minimized, proper protocol, including appropriate consultation and accommodations with respect to local First Nations, must be utilized.

Many of the people I talked to acknowledged the benefit of promoting recreational activities such as mountain biking while also expressing concern over the protection of grassland values. They highlighted the importance of creating designated zones for recreation while ensuring the protection of existing grassland values, and emphasized the importance of creating a comprehensive grasslands management plan that would protect grasslands while improving the integrity of the habitat for the native grass species.

The designated recreational areas, it was said, must be marked with appropriate mapping and signage to ensure that recreationists adhere to trails and stay within the identified zones. This would not only protect the grassland ecosystems, but also the many archaeological sites found in the region. Trails within recreation areas should be as attractive as possible; they could be established where there is natural topographical relief and groomed with installed features to make them look natural.

It was noted that, while the need for recreational zoning is critical, equally important is the appropriate monitoring of all grassland areas accompanied by penalties for anyone committing unlawful damages to the ecosystem. For example, despite the creation of zoned areas for off road vehicles in the Lac du Bois grasslands, there are still people that bike elsewhere in the park, and although this damage has been noted for years, no marked control of unauthorized recreation has been noted. As designated areas become more heavily used, they become less attractive to users, who might choose to look elsewhere for a more natural environment. As concern over the eminent spread of invasive plants such as the knapweeds (*Centaurea* spp.) rises, it is becoming more critical to monitor and contain recreational activities in grasslands.

Conclusion

It would be beneficial to create designated areas for recreational biking. Of course, the process of doing so would have to include the rightful input of all stakeholders and recreationalists from the region. Try as we might, there may still be individuals that will go where they please – so the question is what then?

There are organizations such as the Greater Kamloops Motorcycle Association and the International Mountain Biking Association have websites that provide guidelines for responsible riding. They encourage recreationists to stay within the designated areas and advocate for responsible land use.

Recreational zoning within the grassland ecosystem is a complex prospect and we all have to make a concerted effort to protect this precious ecosystem. I strongly agree that the zoning of recreation biking areas is critical and that separate categories need to be delineated for different types of biking.

Perhaps educational programs can increase awareness about the interface between natural processes and anthropogenic disturbance. Together, we can create monitoring programs within the grassland and recreational biking areas while asserting protection of non-designated biking areas by way of stiff fines or penalties. At the same time, we can implement comprehensive weed control strategies.

Whatever the case, recreational biking is here to stay, and the sooner we gain a position of controlled management, the better for the environment. We must adapt a unified approach in the protection of the grasslands. We all want to enjoy the beauty of our grasslands and especially to preserve it for our future generations to come.

Warren recently graduated from the University College of the Cariboo (Thompson Rivers University) with a Bachelor of Natural Resource Science degree in April, 2004. He is currently working as Forestry Assistant at the Shuswap Nation Tribal Council in Kamloops, BC. Throughout his career, Warren has appreciated the beauty of natural resources both from a cultural and scientific perspective.

Sustainable Mountain Biking is Achievable

Rebecca Wright, Purcell Mountain Bike School

When we were contacted by the GCC to provide an article about our perspective on the impact that mountain bikers have on grasslands, I was compelled to respond. As a rider, coach, program organizer and concerned citizen, I have made many observations made over the years about the truths and misconceptions that surround riders as a whole, as well as the impact we have on our surrounding environment. This article is from a user's perspective. It will touch on who mountain bikers really are, and identify causes of abusive or irresponsible riding and possible solutions for these issues.

Over the past five years, I have infiltrated myself in the mountain biking community. I have found that we are a diverse group ranging from the hard-core young rippers to older recreationists who are out for some fun and fitness. We are students, teachers, lawyers, doctors, mechanics, sales personnel, executives, unemployed people living for the moment, trades workers, business owners, retirees, people with disabilities...you name it. This is a sport that seems to have few boundaries in terms of who actively participates. We come from large city centres, suburban areas and rural communities all over the world. Some of us ride the most expensive and up-to-date equipment, while others are sporting only the necessities to simply

“There is always an opportunity to make a difference and that is exactly what many members of the mountain biking world are doing.”

enjoy a spin. Some cruise mountain roads and sprawling double track, some look for the cardio burn of a three hour grind on single track, and still others are looking for that rush of adrenaline that comes from sheer speed, jumping, riding bridges and performing more freestyle acrobatics and balancing

maneuvers. Cycling has an extremely long history dating back over a century and although mountain biking sports a shorter history of approximately 30 years, it is here to stay. Yet it seems that despite this diversity and history, mountain bikers are constantly trying to beat a bad rap – why is that?

Maybe you have heard some of this before: mountain bikers are inconsiderate to our trails and environment, they cause dangerous and damaging mountain and land erosion in environmentally sensitive areas, they leave behind debris of broken bike parts, they build trails without permis-



Kids enjoying a ride in Invermere. PHOTO COURTESY PURCELL MOUNTAIN BIKE SCHOOL

sion and are generally a nuisance for other recreationists. Is there any truth to these claims? Well, if we look at how rapidly our “pristine areas” are being treated by other user groups, I would have to say that mountain bikers are no exception to the human race. By nature humans take over areas as if they belong to us. We clear-cut forests for all our “necessities,” we build resorts on mountain edges and we fill in wetlands to accommodate urban sprawl. Why would anyone expect that mountain bikers are any different? Are we a different species all together – I think not. Having said this, not all mountain bikers are created equal.

As with all types of human activities, there are people who are concerned with how they use our natural resources, and there are others who are not. Mountain bikers are no exception. It is unfortunate that some citizens do not realize the damage that even one trip down a hillside off a trail can do, but the same could be said of industries that know their emissions practices are unsafe but still continue their business as usual. The problem, I feel, is not one of how to change mountain bikers but of how can we educate all people to be more respectful of our fragile earth.

There is always an opportunity to make a difference and that is exactly what many members of the mountain biking world are doing. It is my belief that the keys to solving many of our user issues are education and place designation. Here are just a few examples of what other riders are doing to “help the cause:”

1. Signing up with riding groups, camps or lessons in order to learn riding techniques, trail etiquette and rider responsibility.
2. Adopting a “no trace” riding mentality whereby one leaves a space in the same (or better) condition than upon arrival.
3. Staying on designated trails.
4. Placing garbage containers near trail heads/ends for proper debris disposal.
5. Organizing bike rodeos where member of the RCMP cover rider safety, the local conservation organization educates about sensitive areas in the community, the bike shop performs helmet and bike fitting, and the bike school holds a skills clinic.
6. Forming trail builders associations that work with local conservationists to determine where it would be most appropriate to build trails so that both groups are satisfied.
7. Encouraging city/town planners to build room in their infrastructure for mountain bikers. Riders will go where the trails are, so if the trails are built in areas that are deemed acceptable, all parties can be accommodated.
8. Expressing to government the need to have a forestry unit in place to help monitor environmentally safe areas for inappropriate use.

The list could go on and on. In essence, remember that we are a diverse

The Role of Business in Land Management

Rob Hood, PhD, Thompson Rivers University

group of citizens that cannot be judged by the actions of a few individuals. We require a place to ride, education on how to be more environmentally aware and the opportunity to plan in advance so that trails can be built more conscientiously. With a bit of patience and acceptance, there is a place for us all.

Becca Wright was born in Ontario and lived in New Brunswick before moving to Invermere, BC in 1997. Becca earned degrees in Kinesiology and Education, along with a Health Counselor diploma in Alternative Medicine. She works as a high school teacher and volunteers as a soccer/bike coach. She was a formative member for the Kootenay Trail Builders Association and the Purcell Mountain Bike School that she runs with her husband Byron Grey.

In August 2004 I attended the World Mountain Bike Conference in Vancouver BC where a speaker recounted his experience developing his business in rural Colorado. He began by stating emphatically and somewhat humorously that cash was his primary motive. Yes cash . . . sometimes viewed as the only motive of private business owners and they'll do whatever it takes to increase profits to be successful. However, he quickly turned to the issue of managing the land for which his business depended. The power of his message took me by surprise. He argued that care of the land was central for securing support from the community and the subsequent success of his business. His talk left me thinking that other business owners in attendance must, if not previously, certainly now believe that stewardship is essential for business success and sustainability.

Clearly business owners have an increasingly important role in stewardship and the growth of recreation/ tourism businesses accessing grasslands and other public lands in BC suggests it will be an increasingly important role. Over the past decade, the number of commercial recreation/tourism businesses seeking to operate on public land has increased substantially. The challenge of managing this growth and subsequent impact on public lands, beyond public recreation, was acknowledged by government in the late 1990's when the Commercial Recreation on Crown Land Policy was introduced to engage recreation/tourism business owners in the management of public lands. The policy is designed in part to ensure business owners are aware of their responsibility toward stewardship, and demonstrate actions required to practice stewardship. Prospective recreation/tourism operators are required to document projected impacts of their activities on the land and how these impacts will be managed. Only then will permits to operate be issued.

While the above example represents a more direct regulatory measure, tourism businesses are voluntarily including strategies to minimize impacts too. Three years ago I attended a BC Wilderness Tourism Association (BCWTA) meeting. The BCWTA, a group of wilderness tourism business owners, agreed that attracting visitors was a competitive business and the type of tourists they seek are demanding experiences only with businesses that demonstrate sound stewardship. Subsequently, they developed a Code of Conduct to not only care for the land, but compete effectively in the global market to sustain their businesses.

In addition to businesses that directly use and impact the land, retailers too have a vested interest in stewardship. An obvious example of this is Canada's Mountain Equipment Co-op, an organization that dedicates resources to environmentally- and socially-responsible projects. Specific to mountain biking, the International Mountain Biking Association (IMBA) dedicates a section of their webpage to industry's role, referring specifically to bike dealers and retailers, in creating a positive and responsible image to enable a land access and minimize impacts.

Is this view evident and practiced in the grasslands of British Columbia? I suggest we don't really know. My brief investigation of mountain biking in the Kamloops area revealed stories of environmentally damaging behaviours associated with mountain biking but it was not always clear if it was commercial operators and their clients or the recreating public. I heard business owners and other stakeholders acknowledge that impacts due to mountain biking alone had increased over the past several years, and that the preferred strategy for management was a self-regulatory system for those invested in the activity. Business owners acknowledged the work of the IMBA, for example the much publicized Rules of the Trail and acknowledged they have role in stewardship.

This is sounding positive and the argument for business to support and practice steward-
...continued over



ship seems feasible. However there are challenges facing commercial operators that may lessen their investment and/or commitment to stewardship. First, there may be costs in terms of time and money that compete with small business owners' ability to be profitable, hence viable as a business. Given business size and the price paid for the experiences they offer, independent recreation/tourism businesses are typically not financially lucrative. This fact may lessen their investing in stewardship beyond exercising minimal environmental impact.

Second, commercial operators sometimes question the fairness of their responsibility to stewardship compared to that of the recreating public who access the same land for free. The recreating public may impact the land more severely simply due to their number, and limited mechanisms to make them accountable. In contrast the commercial operator is required to operate within the standards of their permit and invest in stewardship. The line between public recreation impact and commercial recreation impact may be unclear, and the commercial operator may feel they are left with managing impacts from all users.

Third, business owners are challenged to keep up with knowledge that enables them to support and practice stewardship. The recent 'Best Management Practices for Recreational Activities on Grasslands in BC's Southern Interior' is an excellent resource important to all managers and users of grasslands. Business owners are more likely to practice stewardship and lessen impacts if they are aware of this knowledge. Dissemination of such important knowledge often falls short and does not reach the very people who it is intended to serve.

In summary, I have witnessed positive action, and policy is in place to encourage and require attention to stewardship. However, there are challenges to overcome as industry assumes a role that historically resided with public land managers. I prefer to believe that the recreation/tourism industry is prepared to assume a greater role in the management of grasslands and that the challenges can be addressed through meaningful dialogue among all users.

Rob is an Assistant Professor in the School of Tourism. Two years ago he conducted research to examine mountain biking in the Kamloops area, and discovered there were few if any land management strategies addressing the activity despite its growing popularity and promotion as a tourist opportunity. He hopes to continue his study of mountain biking in the near future.



Grasslands offer unique and beautiful terrain for mountain bikers. PHOTO BY SEAN JENKINS

A Cariboo Trails Perspective

Eric Gunderson, Northwest Environmental Group Ltd.

Recreation planning in the Cariboo... where to start? As a former manager of Crown land and one time park ranger maybe I should produce a planner's credential on this topic. In broad terms I am a land use consultant, and the substantive credential is 30 odd years trying to apply meager geology and economics schooling, often enough in the absence of any plans and models.

British Columbia, in my working experience, is a great place for the contrasting ethics of the developers and conservers. Finding middle ground is all about good planning. Good planning is about knowing when the ground will shift.

There is a strange little tussle going on the Cariboo at present. A lot of keen cycling folks managed to locate, clear and connect a network of Cariboo mountain bike trails. With a lot of help from Forest Renewal BC and the Cariboo-Chilcotin Coast Tourism Association they managed to first print and then web-publish a set of downloadable mountain biking maps. (www.imagehouse.com/guidemaps/home.htm)

The City of Williams Lake itself is surrounded by large plateau areas of once logged Crown lands, now producing its next generation of timber. There is a network of skid trails from the logging (dating to 1930's) and it is also grazing land so the trails are slow to overgrow. The latest evolution of the trail network has been the growing number of cycling visitors, the growing publicity as a mountain bike destination, and recent films, events and competitions promoting these challenging trails. The area is also comparatively dry and sunny with great views from the spectacular terrain. The aforementioned cycling community has taken the trail network one step further. They have (without official approval) installed and constructed stunt obstacles. At first these were natural logs across the trail. But in recent years they have expanded these stunts to include bridges, see-saws, ramps, and log piles. Some of them are quite high, and some of them are, in a word, rickety. From a bureaucratic perspective there arises a quagmire of liability issues which fall squarely on the heads of the Ministry of Forests (MoF) personnel. In 2004 the issue flared with the MoF dismantling of some of the stunts with the greatest exposure and safety concerns. There was a backlash from the cyclists (who are not a registered society). Thus a lot of determined consultation was done to come up with a responsible method to continue this great cycling experience in 2005. And Cariboo people are proud of coming up with made-in-the-Cariboo solutions. (More information can be found at www.pudlebike.com/news.html) Look closely at their trail rules. These riders know about knapweed, cattle, and keeping it on the trail.

Motorized recreation opportunities are also abundant in the Cariboo and Chilcotin. The area has abundant lakes, rivers, trails, mountains, and snow. There are rough tote roads and trails everywhere – with a diverse list of regulations and permissions needed, including closed areas, deactivated areas, and questionable routes crossing private land. You can find virtually every type of terrain and activity to suit your needs. You can also find every type of legal access question. But the growth of tourism and eco-tourism means more organized groups, and more commercial recreation activity. The tourism business person needs operating funds and

their loans require security. A banker wants to know what guarantees a tour business for continued activity. That means buying land or getting a land tenure in many cases. Obviously the only way to secure your business on Crown land is to obtain a tenure such as a lease or a license of occupation. You can buy a resort on the real estate market but how do you secure trail rights? Land & Water BC is the agency that must decide if you can rent Crown land for your tourism business. And yet it is not a simple process. To understand the elements of getting Crown land for any purpose is a logical yet lengthy process of consultations and referrals involving many public values, some of which are contradictory. You are not likely to get started without having a plan, yet by the time you have gone through the application process even the best plan must be fluid to respond to the many affected interests. (To get a good understanding of the process and the requirements examine the Land & Water BC website at: www.lwbc.bc.ca/02land/tenuring/commercialrecreation.)

Many agencies and interest groups have a stake in what new activities will occur and where. The region's resources sector business is characterized by forestry, ranching, mining, and tourism/recreation. But these are not always harmonious neighbors. A sense of how the region sees itself is contained in the Cariboo-Chilcotin Land Use Plan (CCLUP.) This document was the result of a lengthy consultation between the resource users and many other sectors with the goal of benchmarking the general direction for intensity of land use including protected areas and active forest harvesting. (<http://srmwww.gov.bc.ca/car/planning/cclup/>)

The Region is just now enjoying a resurgence of economic activity. Three mines are in stages of opening. The beef industry is improving in the wake of BSE trade restrictions. There have been changes in ownership of several sawmills with industry consolidation and favourable tariff changes. And of course the region has an incredible infrastructure for tourism through it lodges, guest ranches, numerous lakes, and wilderness. Somehow it has not been discovered by the four and five star resorts or mass packaging of eco-tours found in other countries. So maybe the big wilderness recreation surge is yet to occur. After the tourism growth seen in places such as Costa Rica, Mexico and Australia, we still have the greatest unspoiled wilderness.

At present the greatest proportion of users of the wildlands are the residents, often those who log or mine with heavy equipment. For many of them, making trails is their business, and no wonder they have a hard time understanding the impacts of recreation toys like quads and mountain bikes. Nevertheless whole industries are changing their thinking. And recreation is going through the same change. The Cariboo and Chilcotin have always been legendary for open grasslands but also for "forests that you can ride a horse through". The landscape is also fragile and the principal of "Keep it on the Trail" is critical to the continued evolution of recreation and tourism.

Eric Gunderson is a land use and environment consultant in the Cariboo. He has extensive experience with public and private land projects in Alberta, BC, and Yukon. You can contact the author egunders@box100.com

Best Management Practices for Recreation

by Sarah McNeil, Education and Outreach Coordinator, Grasslands Conservation Council of British Columbia

Maintaining healthy grasslands is important for all British Columbians. Grassland ecosystems support a wide range of threatened and endangered species, provide a valuable forage resource for the ranching industry and offer excellent recreation opportunities for residents and visitors alike. Appropriate grassland management will ensure that all these values are protected for future generations.

Grassland recreation is becoming increasingly popular as more people settle in grassland communities. Well-managed recreational activities can minimize impacts to sensitive grasslands and the species they support; conversely, poorly managed or inappropriate recreation can cause significant damage. In order to ensure that grasslands are used in a sustainable manner, recreationists and other grassland users must take responsibility for grasslands stewardship and adopt appropriate management practices. There are a variety of resources available to help guide grasslands users and help them minimize their impacts on grasslands.



Riders make their way up the trail.

PHOTO COURTESY OF KAREN PARKER

Best Management Practices for Recreational Activities on Grasslands in the Thompson and Okanagan Basins

The Grasslands Conservation Council of British Columbia, in partnership with the Ministry of Water, Land and Air Protection, developed the Best Management Practices for Recreational Activities on Grasslands in the Thompson

and Okanagan Basins document. Developed with input from more than 40 organizations, this comprehensive code of practices was created by the user, for the user.

The Best Management Practices (BMP) document is the starting point for organizations and recreation groups, who can use the document to develop activity-specific brochures and other education tools. The extension of a voluntary code of practices to groups and individuals who use grasslands is the first step in achieving sustainable grasslands use.

The GCC is currently working with a variety of motorized recreation interests to develop a pocketbook brochure of BMPs for motorized recreation on grasslands. The brochure is an educational tool that will be distributed to individuals, organized groups and commercial operators, and is an example of how the BMP document can be used to produce targeted

The Best Management Practices for Recreational Activities on Grasslands in the Thompson and Okanagan Basins document is available for download by visiting <http://www.bcgrasslands.org/conservationcampaigns/bmp.htm>

Tread Lightly!®

Tread Lightly!® is a non-profit organization with a mandate to promote responsible outdoor recreation through education and restoration. Originally launched as a program of the US Forest Service in 1985, the organization moved to the private sector in 1990 to improve effectiveness and better meet its goals. Tread Lightly! offers a wide range of programs, including a training program for instructors of the Tread Lightly! ethic, restoration and enhancement of recreational sites, and a wide range of educational tools for recreationists.

The Tread Lightly! website offers recreation tips for activities ranging from mountain biking to hunting to back country skiing. Tread Lightly! has also produced guidebooks for mountain biking, trail biking, ATV use, snowmobiling and personal water craft use, which are available for purchase or download by visiting: <http://www.treadlightly.org>.

Other Resources

There are a variety of other resources available to recreationists who would like to minimize their impacts on grasslands and other sensitive ecosystems.

The Outdoor Recreation Council of British Columbia (ORC) has published a series of educational and informational brochures covering such topics as trail use ethics and backcountry sanitation. The brochures can be ordered free-of-charge from the ORC website at: <http://www.orcbc.ca>.

The Trails Society of BC (also known as TrailsBC) is a non-profit organization with a mandate to facilitate the development of sustainable, multi-use trails in BC, including the BC portion of the Trans-Canada Trail. A wide selection of trail maps and other resources is available at the TrailsBC website: <http://www.trailsbc.ca/>.

The Greater Kamloops Motorcycle Association includes on their website a list of trails and designated areas for off-road vehicle use in the Kamloops area. Visit their website at: <http://www.gkma.ca/>

Grasslands offer a wide range of recreation activities for all British Columbians. With wise and careful use, we can ensure that healthy grasslands will continue to provide world-class recreation opportunities for generations to come.

In her role as the Education and Outreach Coordinator for the Grasslands Conservation Council of British Columbia, Sarah oversees the BC Grasslands website, BC Grasslands magazine, the public service announcements project and a variety of other communication and outreach activities. You can reach Sarah at 250-374-5787 or sarah.mcneil@bcgrasslands.org

Conservation partner profile: Ducks Unlimited Canada

by

text to come



South Okanagan Grasslands Protected Area, Osoyoos: A Hotbed of Endangered and Threatened Plants

Jenifer Penny, Botanist, Conservation Data Centre

If the sagebrush hills surrounding the town of Osoyoos could talk, what a story they would tell about the catastrophic transformation of the valley below over the last hundred years. Where there was once antelope brush, bunchgrass and sagebrush ecosystems and pristine sandy shorelines, there are now orchards, vineyards, golf courses, weeds and ever expanding residential development. These changes have resulted in a decline in the richness of the native flora. Many special plants, ranging peripherally into BC from the south, have disappeared. Fifteen native species, subspecies or varieties collected by botanists since the turn of the 20th century, and presently considered at risk by the BC



Lyall's mariposa lily is one of the rarer grassland plants found in the South Okanagan. PHOTO COURTESY OF STEVE CANNINGS

Conservation Data Centre (CDC), persist no longer in this area. It is no longer possible to observe and enjoy plants such as Atkinson's coreopsis, scarlet globe-mallow, or shy gilia in Osoyoos. In addition, some native plants recorded here in the earlier days survive in far fewer locations than they once did. Some species only persist today on undeveloped First Nations lands.

Luckily, we can take heart in knowing that fairly pristine areas still exist in this part of southern BC, but you're going to have to leave town and head for the hills to see them! First, stock up on local fruit from the orchards and the divine offerings of the wineries, and then head west out of Osoyoos for nine kilometres on Highway 3 to Richter Pass. You'll find access to

the South Okanagan Grasslands Protected Area via Kruger Mountain road. This protected area is comprised of four discontinuous parcels of land called the Mount Kobau, Chopaka East, Chopaka West, and Kilpoola sites.

South Okanagan Grasslands Protected Area was established in April 2001 to conserve, among other things, some of the best examples of mid- to high elevation climax grassland and sagebrush communities left in the province. In these areas, stunning landscapes abound with rolling hills of open Douglas-fir forest, big sagebrush/bluebunch wheatgrass/arrow-leaved balsamroot grassland, and deciduous and riparian areas. Other native plants common in the area include needle-and-thread grass, six-weeks grass, shaggy fleabane, and threetip sagebrush. Two CDC Red-listed natural plant communities have also been identified in the protected area: Vasey's big sagebrush/pinegrass and big sagebrush/bluebunch wheatgrass-balsamroot plant communities.

Other special biodiversity features include Blue Lake, which has an unusual chemistry that encourages the growth of a rare anaerobic purple sulphur bacteria, at-risk, terrestrial lichens, important Bighorn Sheep range, class one Mule Deer winter range, and several species of wildlife at-risk. Among these are the Pygmy Short-horned Lizard, the Sage Thrasher, and Brewer's Sparrow.

Of course, this area and the adjacent private parcels are also important havens for a diversity of native plant species considered at-risk in the province. This is because there are so few areas of relatively pristine habitat like the South Okanagan Grasslands Protected area left. In fact, an astounding 46 provincially Endangered, Threatened, or Special Concern plants have been observed in or adjacent to the four protected area parcels. Nearly one-fifth of these species have not been seen for at least 25 years and about the same number have not been seen for 10 years. Other species have recently been collected during specific rare plant inventory projects. Lyall's mariposa lily was the focus of a doctoral thesis by M. Miller in 2004 and the Grand Coulee owl-clover was recently found during surveys to identify plants at risk in the

protected area.

The only known location for Lyall's mariposa lily in Canada is in and around the Chopaka East site of the protected area. This species is not only significant provincially but also nationally and globally. It is CDC Red-listed and Committee on the Status of Endangered Wildlife in Canada (COSEWIC) Threatened. It is also legally listed by the national Species at Risk Act and its world distribution is restricted to BC and Washington State. As a requirement under Species At Risk legislation, this and other COSEWIC-listed species require recovery action. The South Okanagan and Lower Similkameen Valleys Recovery Strategy outlines steps needed for securing and down-listing Lyall's Mariposa Lily in Canada. In the strategy, recommendations for recovery include site-specific management, removing threat, seeking out new natural populations and assisting in establishment of new ones.

In contrast to Lyall's mariposa lily, Grand Coulee owl-clover is not yet designated nationally and therefore not addressed by the Species at Risk Act of Canada. A status report has been submitted for review by the COSEWIC plants subcommittee but will not be assessed until this May. It will take another several months before this species can be added to the legal list following COSEWIC's assessment. Currently, the BC CDC considers this plant Endangered but under the provincial Wildlife Act, it is only a candidate for listing at some point in the future and currently not afforded any protection. Furthermore, the other locations for Grand Coulee owl-clover in BC are within the town of Osoyoos and are under serious threat. This species was only just discovered in BC in 1994, undoubtedly somehow missed by the early collectors. It was also only just discovered in the South Okanagan Grasslands Protected Area in 2003. It is fortunate that this species occurs there as its survival in BC may depend on it. Locations in Osoyoos are destined to go the way of the others, lost to development and agriculture.

The South Okanagan Grasslands Protected Area, therefore, plays an important role in preserving much needed habitat that is otherwise

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Brewer's Sparrow – The Small Sagebrush Songster

Nancy Mahony, PhD, Canadian Wildlife Service

Known affectionately to birdwatchers as LBJs (Little Brown Jobs), sparrows provide identification challenges to those unfamiliar with their subtle charms. While mostly small and brown with various spots, streaks, eye-rings, wing-stripes and bits of brighter colour, each sparrow species has its own unique distinguishing marks. The Brewer's Sparrow however, may be the least distinguished of the bunch. With a buffy brown streaked back, light belly, pale brown ear patch and greyish-white eyebrow, it stands out from the sparrow crowd by its' relative drabness. However, what it lacks in showy appearance it makes up for with the exuberance of its song. The song's description as a series of varied bubbling notes and buzzy trills at different pitches hardly does justice to the extraordinary sight and sound of this little bird perched atop a sage shrub, head thrown back belting out a dazzling vocal display.

There are two distinct subspecies of Brewer's Sparrow in British Columbia considered by some to be separate species; the timberline (*Spizella breweri taverneri*) and the sagebrush (*Spizella breweri breweri*). The timberlines breed in sub-alpine areas throughout the Rocky Mountains and very little is known about its distribution or biology. The sagebrush variety is a bird characteristic of the sagebrush grasslands, or shrub steppe regions of the Great Basin of Western North America. In British Columbia, it breeds in the southern Okanagan and Similkameen Valleys from Penticton to the US border.

Typical breeding habitat of the Sagebrush Brewer's Sparrow is characterized by moderate sagebrush cover and an under-storey of native plants such as lupines that provide food for insects which are in turn eaten by the sparrows. Males arrive on breeding territories from late April until mid-May when they sing raucously to defend a territory and attract a mate. Once a female picks a mate, she builds a small compact nest of grasses that is placed most often in medium-sized sage shrubs. They will place nests in other plants such as snowberry, wild rose, lupine, giant wildrye, lemonweed and bluebunch wheatgrass if sagebrush is not avail-

able, for instance when it has been removed by fire.

Females lay three to five eggs, which are incubated mainly by the females, although males take their turn when the female forages. The eggs hatch in 11 days and the chicks leave the nest after eight to nine days if they have avoided being eaten by predators, which include snakes, small mammals, crows and magpies. If a nest is destroyed by a predator, a pair usually builds a new nest and tries again. If it is early enough in the breeding season, a pair may even re-nest after a successful nest. During a particularly good breeding season in 1998, one observed female made four nesting attempts, two of which were successful, and another made three successful breeding attempts, fledging an astounding 10 chicks in one season, an incredible output for a bird weighing 10 to 12 grams. By the end of July breeding is finished and the sparrows often head upslope to cooler, wetter areas until they leave on fall migration by early September. Brewer's Sparrows winter in dry scrub habitats in southern California, Arizona and New Mexico, and through Baja and central Mexico.

The current population estimate for BC is approximately 1,200 breeding pairs. However, it is not known whether the population is stable. Throughout its range in the western US, the species has been declining at a rate of about three percent per year for the last 35 years according to Breeding Bird Survey (BBS) data. However, the BBS data in BC are insufficient to estimate a trend. Like many grassland species in this region Brewer's Sparrows are threatened by urbanization and intensive agriculture. They are red-listed (endangered) in BC due to their restricted range and threatened shrub steppe habitat. Livestock grazing in the sagebrush grasslands that remain alters the plant community, increasing the spread of exotic weeds at the expense of native grassland vegetation.

Brewer's Sparrow wintering habitat is under similar human pressures and this may be as important a factor in declining populations as breeding habitat. Recent population models point to over-winter survival and immigration



There are an estimated 1,200 breeding pairs of Brewer's sparrow in BC. PHOTO COURTESY OF STEVE CANNINGS

from nearby populations as key factors in maintaining the population in BC. This suggests that international cooperation to conserve habitat throughout the range of this bird's annual cycle may ultimately determine its fate. Recently some of the best habitat for Brewer's Sparrows in BC has been protected in the grassland provincial parks, hopefully preserving key breeding areas indefinitely into the future. Ongoing research by the Canadian Wildlife Service into the population trends and the effects of habitat and weather on this population continue to teach us more about the factors affecting this species. These efforts coupled with international cooperation such as the North American Bird Conservation Initiative will hopefully keep this small sagebrush songster an abundant icon of one of BC's unique grassland ecosystems.

Nancy Mahony completed a PhD at the University of British Columbia studying population dynamics of the Sagebrush Brewer's Sparrow in BC in 2003. She is currently a biologist at the Canadian Wildlife Service in Delta, BC where she misses the smell of sage and the song of the Brewer's Sparrow.

John Schnurrenberger

Adapted from an article by Susan Zais



John Schnurrenberger helping out at a local ranch. PHOTO BCOURTESY OF JOHN SCHNURRENBERGER

Born in Switzerland Jan. 24, 1941, Schnurrenberger spent much of his childhood in the company of his grandfather, one of Europe's last great stage coach drivers, and learned to love the horses he raised and trained. John, an avid reader of horse publications, became fascinated with the North American "West", immigrating to Canada in 1965.

John landed a job on a ranch and then went on to spend six years as a commercial artist in the Vancouver area. In 1974 he and wife Antje moved to the 12 acre ranchette in Westwold, just south of Kamloops, where they still live today.

Over the last 31 years John has been thrilled to live out his dreams; to be both a self supporting artist and a hobby cowboy and horse trainer. He has spent countless hours helping various neighbouring ranchers move cattle on horseback and has often been a familiar figure at brandings, calving and roundup times at ranches such as Douglas Lake and in the Nicola Valley.

These excursions not only appealed to his love of the cowboy life but gave him ample opportunity to take the many photos he uses to ensure accuracy of detail in his paintings.

Working predominantly in oils, Schnurrenberger has turned out a prodigious amount of work; his originals being snapped up by enthusiastic collectors almost before the paint is dry!

His work has appeared on many calendars and magazine covers, and also appears on the special designated MasterCard. Many of his images have also been made into limited edition prints and art cards.

John says, "I am mostly doing commissioned work now and maybe produce one limited edition print a year. I am no longer doing one man shows but occasionally participate in group shows. I still train one or two horses a year and continue to help my rancher friends and neighbours work their stock. I have never been much for taking vacations; the time spent working cattle and riding my horses is pure holiday for me and all the relaxation I need!"

John's work is currently available through the Hampton Gallery in Kamloops, and he can be reached at 250-372-2293.

This article was adapted and reprinted with the permission of the BC Cattlemen's Association and John Schnurrenberger. It first appeared in the May/June 2003 issue of Beef in BC magazine.



Okanagan

Proposed National Park Reserve Feasibility Study

On October 2, 2003, the federal and provincial governments signed a memorandum of understanding (MOU) that paved the way for the creation of a new national park reserve in the South Okanagan. Under the MOU, Canada and British Columbia agreed to work cooperatively to assess the feasibility of establishing a new national park reserve in the South Okanagan. Since the MOU was signed, Parks Canada has organized meetings, presentations and open houses to discuss the feasibility study, and provide information to and answer questions from the public.

No park reserve boundary has yet been proposed, but Parks Canada has identified an area of interest which is subject of the feasibility study. The area of interest extends from Penticton in the north to Osoyoos in the south, but any future national park reserve would encompass only a portion of this area and would not include communities or developed areas.

Phase One of the feasibility study, gathering information and scoping the issues and opportunities, has been completed. Phase Two of the study involves preparing a park concept. During this phase, Parks Canada will prepare conservation targets and the park vision, develop boundary options for the park and refine the park concept, collect socio-economic information on the area, assess the potential for natural region representation and ecological integrity and begin the initial assessment of impacts and opportunities for the park reserve.

For more information on the proposed national park reserve, please visit the Parks Canada website at www.pc.gc.ca/sols or contact the Parks Canada at sols@pc.gc.ca.

Establishing Grassland Benchmark Area in the South Okanagan

On April 1, 2004 a small subcommittee of the Land and Resource Management Plan (LRMP) Implementation Monitoring Committee known as the Ungrazed Areas Panel initiated, in partnership with the GCC, a process to review Protected Areas in the South Okanagan and Lower Similkameen Valleys that offer potential for establishment of ungrazed grassland benchmark areas. The objective for the committee was to apply funding from the Ministry of Water, Land and Air Protection to select and build one enclosure in the South Okanagan and Lower Similkameen.

Although part 5 (the Protected Areas section) of the Okanagan-Shuswap LRMP document identifies grazing as a permitted activity within a Protected Area, it also calls for the establishment of ungrazed benchmark areas for the Protected Areas. These ungrazed benchmark areas were intended as a tool to assess the short- and long-term impacts of grazing on plant communities and the wildlife that depend on these ecosystems. Ungrazed areas are to provide resource managers with a benchmark or reference site to assist in monitoring grassland condition and trend.

The Ungrazed Areas Panel completed a thorough analysis of potential sites based on existing and potential ungrazed areas that represent grassland ecosystem types – 16 eco-types in total – in the South Okanagan and Lower Similkameen Valleys. The analysis resulted in the selection of 13 potential ungrazed areas, one of which was selected for fencing. Approximately \$22,000 was invested to build the Kilpoola ungrazed benchmark area located within the East Chopaka South

Okanagan protected area.

Building on the success of this project, the Grasslands Conservation Council of British Columbia, the Ministry of Sustainable Resource Management, Ministry of Forests and the Ungrazed Areas Panel will develop a proposal for the establishment of other Ungrazed Areas in the region as well as develop a plan for future maintenance and monitoring of these sites.

For more information on this project, please contact Terry Macdonald at Terry.Macdonald@gems5.gov.bc.ca or Bruno Delesalle at bruno.delesalle@bcgrasslands.org.

Peace

The Peace River Forage Association

The Peace River Forage Association (PRFA) was started in 1992 to promote, encourage, develop and protect the forage industry; maximize information transfer an increase forage knowledge; develop forage opportunities and appropriate methodologies to apply knowledge effectively; and represent forage producers of the Peace River region in issues important to them.

The Peace River Forage Association of BC was presented with the BC Cattlemen's Association "Environmental Stewardship Award" in 1999. The award was received as a result of 20 projects the Association had undertaken in the areas of communicating, improving forage and grazing systems, addressing wildlife issues, and developing and demonstrating remote watering systems.

The Association shares information with its membership and beyond through newsletters, forage fact sheets, tours, field days, and winter forage club meetings. The newsletter "Forage First" is mailed out four times a year, communicating to 500 forage enthusiasts. To date over 38 Forage Fact sheets have been compiled. Annual forage and livestock tours are held, highlighting innovated ranches, practices and projects. The Association hosts several Friendly Field days & mini-tours each summer, as well as Forage Club meetings and seminars during the winter months.

For more information visit the Peace River Forage Association of BC's web site: <http://www.peaceforage.bc.ca> or e-mail Associations coordinator at coordinator@peaceforage.bc.ca.

Province-Wide

Invasive Plant Council of British Columbia

The Invasive Plant Council of British Columbia (IPCBC) came to rise from the Invasive Plant Strategy for British Columbia, a document produced by a diverse group of partners lead by the Fraser Basin Council. The IPCBC's goal is to work toward the implementation of the strategy so that through cooperation and coordination, negative ecological, social and economic impacts caused by invasive plants can be minimized. The IPCBC Board of Directors is a varied group and has representation from the agriculture, tourism, mining, forestry, transportation and utilities industries, as well as First Nations, federal, provincial and municipal governments. News about IPCBC events and initiatives can be found on the IPCBC's new website at <http://www.invasiveplantcouncilbc.ca>. For more information about the IPCBC, please contact them at info@invasiveplantcouncilbc.ca.

Sagebrush Buttercup: The Harbinger of Spring

Brian Wikeem



Sagebrush buttercup flowers and three-lobed leaves. PHOTO BY BRIAN WIKEEM

Take a walk through the grasslands in late winter and you're likely to detect the occasional hint of new growth. A few pale-green shoots of the bunchgrasses emerge through the protective cover of past years' litter and the usually drab lichens and mosses reveal themselves in emerald tones. The brightest note however, is reserved for the flash of gold of the sagebrush buttercup (*Ranunculus glaberrimus*) as it heralds the imminent arrival of spring.

Sagebrush buttercup is a small, perennial forb usually less than 15 centimetres tall. It has a cluster of shallow, rather fleshy roots and numerous, stalked basal leaves that may have either smooth margins or three-lobed tips. The few upper leaves are shallowly to deeply three-lobed. Some species of buttercups are called "crowsfoot" in reference to the three-lobed leaves that are shaped like a bird's foot. Each stem bears one or more of the typical yellow buttercup flowers. The nectary, a very small scale at the base of each petal, is partly responsible for the flowers' common name, but the fancied resemblance of the shiny or "varnished" yellow flowers to a cup of butter is the other reason. The short-lived flowers soon fade to reveal a globular cluster of about 30 – 150 tiny "seeds" (achenes).

This tiny species is one of 33 species of buttercups in British Columbia. As with all buttercups, the genus name, *Ranunculus*, originated from the Latin rana, which means

"little frog." The great Roman naturalist, Pliny the Elder, first used this name for these mostly aquatic plants that grow where frogs abound. The species name, *glaberrimus*, relates to the plant being smooth or glabrous (non-hairy).

Sagebrush buttercup is common in southern British Columbia and extends south to California and New Mexico, and east across the prairies as far as North Dakota. As its name implies, this plant flourishes in our province's dry, hot sagebrush grasslands but it grows over a wide range of habitats from shrublands to open forests, rocky slopes, and other open sites up to subalpine.

At first glance the arid habitats favoured by the sagebrush buttercup bear little resemblance to the cool and moist environments where aquatic buttercups (and frogs) abound. Sagebrush buttercup's secret is timing – it grows when soils are moist and cool. The leaves appear just as winter starts to loosen its grip, sometimes even before the snow melts. The shallow roots absorb surface moisture from snowmelt and spring rains, and the ground-hugging, basal leaves are resilient to cold and even snow.

Plants have been known to flower beneath the snow as early as January when temperatures are well below freezing! Light and moisture are readily available at this time of year since other, larger plants are still dormant. The buttercup's moment of glory is short-lived however. As the surface soil moisture is depleted below the buttercup's shallow rooting zone, and growth of the taller neighboring plants quickly shades the ground, the dainty buttercups wither and become dormant. With adequate moisture in fall, they may break dormancy and develop leaves; otherwise they will remain below ground until late winter.

Although pretty to look at, many species of buttercups are best admired from a distance since they contain toxic glycosides and are mildly poisonous. Contact with the acrid sap may result in skin redness, burning and possibly blistering. Ingestion may cause burning in the mouth, abdominal pain and bloody diarrhea. Poisoning is uncommon because large amounts must be consumed and since the plants are unpalatable they are usually avoided.

First Nations were aware of the toxicity of sagebrush buttercup and warned their children not to pick the plant. However, as with many poisonous plants, they were able to turn the toxic properties to their advantage. The Okanagan-Colville Indians prepared poisons by rubbing sagebrush buttercups on arrow points or by mashing the buttercups and rubbing them on meat for poisoned coyote bait. They also mashed and dampened whole plants to prepare poultices for sore joints and other pains. The Thompsons, who also recognized the skin irritant properties, applied a poultice of the mashed flowers to warts.

The sagebrush buttercup is truly the harbinger of spring and is the earliest flowering plant on our grasslands. The open blossoms act as beacons to foraging bees and other nectar-feeding insects that welcome the early source of nectar. Look for sagebrush buttercup from late February to June in native grasslands and dry, open forests, especially around the bases of hills or other areas where soils are slightly moist. They are most easily



Some plants flower before the snow melts. PHOTO BY BRIAN WIKEEM

Call for Members

The GCC has enjoyed a busy and productive year. It is to you, the members, we owe much of our success in 2004-2005, and for that we thank you!

A great number of memberships are due for renewal in the coming months, and we are confident that we can rely on your continued assistance in our mission to conserve BC's precious grassland ecosystems.

Our membership is growing, and we hope to continue our relations with our loyal members even as we welcome many new grassland enthusiasts to our growing base of support. Please use the enclosed membership form to support the GCC and do your part to promote the stewardship of BC's grasslands.



Sagebrush buttercup provides nectar for the first insects of spring. PHOTO BY BRIAN WIKEEM

spotted where ground cover is short or discontinuous, such as on shallow, rocky soils, between sagebrush and bunchgrasses at lower elevations, and in pastures that have been heavily grazed by livestock or other large mammals. On upper grasslands where litter accumulates they appear as spindly plants that

manage to protrude to the surface.

While you are searching, be sure to admire the lichens and mosses which are at their finest in early spring. Also look for other early flowering but slightly later plants such as yellow bells (*Fritillaria pudica*), larkspur (*Delphinium* spp.), small-flowered fringe cup (*Lithophragma parviflorum*) and small-flowered blue-eyed Mary (*Collinsia parviflora*). It won't be long before the balsamorhizae (*Balsamorhiza sagittata*) are in bloom and the grasslands are in their full glory. Its life cycle complete, sagebrush buttercup takes a back seat as the pageant of spring unfolds.

NOTICE

2005 Annual General Meeting

The GCC Annual General Meeting will be held in conjunction with the 2005 Healthy Grasslands Symposium. The GCC AGM will take place at Thompson Rivers University on Saturday, June 18, 2005. Further details on the AGM and symposium will be available in April and will be posted on the GCC website. For more information about the AGM please contact Sarah McNeil at sarah.mcneil@bcgrasslands.org or 250-374-5787.

Profile of a GCC Director

Dennis Lloyd

Profile of a GCC Director: Dennis Lloyd
Dennis has been with the GCC since its inception in 1999. He works as a research ecologist for the British Columbia Ministry of Forests and is the co-author of the popular Plants of the Southern Interior British Columbia. Dennis' work in ecosystem classification is well-known throughout BC's Southern Interior region. He has a wide range of experience in ecosystem mapping, plant communities, and silviculture. Dennis has also

contributed to the Land and Resource Management Plans for several regions in BC and continues to volunteer his time and expertise. Dennis and his wife Sandra make their home in Kamloops, BC.

Grasslands Slideshow

On March 15th the new partnership between the GCC and Chris Harris Photography presented a sophisticated slide-sound presentation on BC's grasslands at Martin Exeter Hall in 100 Mile House. Bruno Delesalle, Kristi Iverson and Ordell Steen of the GCC joined Chris to present to the audience the GCC's mandate and show their support toward in the creation of the book British Columbia Grasslands.

The event was the official launch of the fund-raising campaign which will be critical in enabling the project to be effective and successful. The creation of this book is a huge undertaking, with no smaller goal than to put the grasslands on the world stage of conservation efforts.

More slide shows are planned for April and May and will be open to the public at no cost, although donations and sponsorships are welcome. For more information on these slide shows, please visit <http://www.bcgrasslands.org/projects/edoutreach/book.htm> or contact the GCC at gcc@bcgrasslands.org.

Sustaining Healthy Grasslands Symposium

Mark your calendar! The GCC is hosting a Sustaining Healthy Grasslands Symposium in Kamloops, BC on June 17, 2005. The goal of the 2005 Sustaining Healthy Grasslands Symposium is to enable a common understanding of grasslands-based mountain biking, grassland stewardship and the future of grassland recreation in British Columbia.

Symposium registration will open on April 24, 2005. For more information on the symposium please contact Sarah McNeil at sarah.mcneil@bcgrasslands.org, 250-374-5787 or <http://www.bcgrasslands.org/about/projects/edoutreach/sym.htm>.

Members' Bulletins

The GCC is excited to offer a new service to GCC members: Members' Bulletins. The bulletins, which will be sent via email quarterly, will include important updates on GCC programs and projects, grassland events across the province and other news of value to our membership. If you have not yet provided the GCC with your email address, please contact us at gcc@bcgrasslands.org to be added to our members' mailing list.

UPDATE: Education and Outreach Program

BC Grassland Website

The BC Grasslands website is a comprehensive resource for all grasslands-related information in the province. On the website you can find information on all GCC programs and projects, as well as updates on other grassland conservation initiatives around the province. The website also includes Understanding Grasslands, an educational site focusing on grassland ecology, and Where Are BC's Grasslands, an interactive mapping component that was developed through the BC Grasslands Mapping Project.

In the coming weeks, the GCC will launch a new website component, Sustainable Grassland Management, which will focus on grasslands use and management. The Sustainable Grassland Management site will be an excellent resource for members of the ranching community, students, academics and the interested public. It includes information on the history of the ranching industry in BC, grassland plants and plant communities, management practices such as grazing systems and grazing distribution, and grassland monitoring.

During the 2005 – 2006 fiscal year, the GCC will continue to build upon the site and incorporate new information, including: regional grassland maps for all regions with relevant grassland descriptions; results of the Priority Grasslands Initiative including maps, data and associated planning tools; Mitigating Fragmentation and Development of BC Grasslands Problem Analysis results; and a new site focused on responsible recreation in BC's grasslands with best management practices for motorized and non-motorized recreation.

The GCC would like to thank the following partners for supporting GCC website development:

- Agriculture Environment Initiative
- BC Gaming Commission
- Habitat Conservation Trust Fund
- Vancouver Foundation

BC Grasslands Public Service Announcements

The first in a series of dynamic public service announcements (PSAs) for television is currently in production and will be completed in early summer 2005. Through this PSA series, the GCC will reach out to members of the public not familiar with BC's grasslands. Using a com-

bination of animation and live action footage, viewers will be introduced to two characters – the cow and the curlew – and discover the grasslands through their eyes. Throughout the series, the cow and the curlew will meet a variety of other grassland species which will be included as animated characters. The series will showcase a variety of threats to grasslands and encourage viewers to take a proactive role in grasslands conservation and stewardship. The cow and the curlew will also be used for other GCC Education and Outreach initiatives and projects, such as activity sheets for children and posters.

The BC Grasslands Public Service Announcement project is funded by the BC Gaming Commission, Habitat Conservation Trust Fund, and the Grazing Enhancement Fund.

Sustaining Healthy Grasslands Symposium

The GCC will be hosting a Sustaining Healthy Grasslands Symposium on July 17, 2005 in Kamloops, British Columbia. The symposium, focusing on mountain biking in British Columbia grasslands, will bring together stakeholders in the recreation and tourism industries, landowners and managers, and members of the general public to raise awareness, provide information and facilitate discussion and dialogue that will lead to action. The focus will be on educating grassland users on the damage that irresponsible recreation causes to grassland habitats and grassland species. It will also introduce ways to minimize these impacts, and provide the GCC with a clear vision on how to further mitigate recreational damage to grasslands in British Columbia.

Those interested in attending the symposium are encouraged to contact the GCC at 250-374-5787 or gcc@bcgrasslands.org.

Member Bulletins

The GCC is excited to offer a new service to GCC members: member bulletins. The bulletins, which will be sent via email quarterly, will include important updates on GCC programs and projects, grassland events across the province, and other news of value to our membership. If you are a GCC member but have not yet provided the GCC with your email address,

please contact us at gcc@bcgrasslands.org to be added to our members' mailing list.

Best Management Practices for Mountain Biking on BC's Grasslands

The Best Management Practices (BMPs) for Mountain Biking in Grasslands project is a targeted outreach program designed to reach the younger demographic often associated with the mountain biking community. The GCC will, in collaboration with the mountain biking community, hold presentations in a variety of grassland communities through the province in order to extend a voluntary code of stewardship practices for mountain biking on grasslands. Each outreach session will include an audiovisual presentation and facilitated discussion, and will also give riders an opportunity to express their concerns to the GCC.

The BMPs for Mountain Biking in Grasslands project will begin in late summer or fall of 2005.

Grasslands Slideshows

In April 2005 a partnership will be established between the GCC and Chris Harris Photography and Country Light Publishing to produce a coffee table book on the grasslands of British Columbia, featuring Chris Harris's stunning photography. The book will be developed and produced over the next two to three years. A GCC Committee has been established to work with Chris Harris to develop the story line for the book. Chris Harris has already begun shooting images throughout the Cariboo and Chilcotin for the book.

To raise the necessary funds to produce the book and to raise awareness about BC's endangered grasslands, Chris Harris and the GCC Committee will present grassland awareness slide shows around the province. The first slide show was a great success! It was presented at Martin Exeter Hall in 100 Mile House. Chris Harris was joined by the GCC Executive Director Bruno Delesalle, Kristi Iverson and Ordell Steen both GCC Directors and members of the GCC Book Committee to present the audience with a story about of BC's Grasslands accompanied with Chris Harris's stunning photography. Chris Harris presents an eloquent and passionate story.

The grassland awareness slide show was the

official launch of the fund-raising campaign for the book. More slide shows are planned for April and May. Please Join Chris Harris and the

GCC for a wonderful show and help us raise the funds for this important project. For more information on these slide shows, please visit

<http://www.bcgrasslands.org/projects/edoutreach/book.htm> or contact the GCC at gcc@bcgrasslands.org.

UPDATE: Grassland Stewardship and Sustainable Ranching Program

Coalition for Licensing and Registration of Off Road Vehicles

This important public policy initiative will provide the means for better management of off road vehicles in BC.

The Coalition is now fully engaged with the provincial government on developing options for licensing and registration of off road vehicles. In collaboration with the ATV – Interagency Policy Committee (lead by Ministry of Sustainable Resource Management), the Coalition will develop regulatory and administrative options for licensing and registration, including management options to address safety, education and enforcement.

A significant milestone was achieved in completing the “Solutions for a Sustainable Future” interim report in July 2004. This foundation document presents a strong rationale for licensing and registration and better management of off road vehicles in British Columbia. The culmination of 18 months of collaboration amongst 12 interest groups, extensive research, and consultation with government agencies, the “Solutions” document is a major milestone in this groundbreaking process.

For more information on the Coalition and to download the “Solutions for a Sustainable Future” interim report visit the project website at: <http://www.bcgrasslands.org/conservation/orv/coalition.htm>.

Mitigating Fragmentation and Development of BC's grasslands

This multi-year project will bear strategic tools to help the GCC, other NGOs, and the public effectively address the fragmentation and development of BC's grasslands.

The project includes the following steps:

- Establish a project advisory committee (the committee includes representation from SmartGrowthBC; Ministry of Agriculture, Food and Fisheries; Aspen Park Consulting; Rangeland Associates; BC Cattlemen's Association/Gerard Guichon Ranch and the GCC)

- Conduct a stakeholder workshop to flesh out issues and help focus the scope of the project – Completed May 2004
- Based on the results of the workshop, develop a Strategic Planning Tool document to help focus the strategy-building component of the project – Completed July 2004
- Conduct an in-depth problem analysis with the ultimate goal of producing a strategy for mitigating the fragmentation and development of BC's grasslands
- Implement the recommendations within the strategy document, possibly to include regional workshops for land use planners or a provincial conference

The project advisory committee is now reviewing the draft problem analysis produced by GCC Runka Land Sense Ltd and team. Following from this the consultant team will devise a strategy and implementation plan with prioritized options to help guide the GCC and its partners take action on this pressing conservation issue.

For more information on this project, or to download associated documents, please visit the project website at <http://www.bcgrasslands.org/conservation/fragdev.htm>.

A sincere thank you to the following funding partners: Agriculture Environment Initiative; Ministry of Water, Land and Air Protection; Vancouver Foundation; McLean Foundation; Beef Cattle Industry Development Fund; Sonoran Institute – Public Fund for Community Collaboration.

Best Management Practices for Motorized Recreation 'Pocketbook'

The BMP pocketbook will serve as a useful in-the-field educational tool for motorized recreation interests recreating in grasslands.

Last year the GCC, in partnership with the Ministry of Water, Land and Air Protection, developed Best Management Practices for Recreation Activities on Grasslands in the Thompson and Okanagan Basins. The BMPs are voluntary stewardship guidelines that identify

ways in which recreational users can help sustain healthy grasslands while continuing to enjoy their activities. This comprehensive reference document describes impacts and recommended objectives for 12 recreation activities that take place in the grasslands of the Thompson and Okanagan basins.

Building on the success of the foundational BMP document, the GCC is now working with summer and winter recreation interests on developing an educational 'pocketbook' specifically for motorized recreation groups, commercial operators and individuals. A key aspect of this project will be working with motorized recreation clubs to develop a network for distributing the pocketbook to the end users. The pocket book is expected to be available by spring 2005.

For more information on the Best Management Practices initiative, visit the project website at: <http://www.bcgrasslands.org/conservation/campaigns/bmp.htm>.

A sincere thank you to the following project funding partners: Canadian ATV Association; Real Estate Foundation; Ministry of Water, Land and Air Protection.

First Nations' Relationship-building Committee

Following from a successful Fall Directors' meeting focusing on First Nations relationship-building at Chief Louis Centre in Kamloops, the GCC is working with the Shuswap Nation Tribal Council to explore areas of common interest and ways to collaborate on grassland conservation and stewardship.

It is the GCC's hope to solicit SNTC representation on the GCC Board of Directors and following from this continue to build strategic relationships with other First Nation interests throughout the province. Nearly all of BC's grasslands are within traditional territory while a significant portion are within Indian Reserves, so healthy First Nations relationships based on trust and mutual respect will be criti-



The BMP document was developed with input from more than 40 organizations.

There is agreement that British Columbia needs a tool to assess grassland condition and trend. This tool will be:

- Practical, simple, and easy to use in the field;
- Based on existing science, knowledge and methods from BC and elsewhere;
- Rigorous enough to evaluate environmental change at an acceptable level of accuracy, and be repeatable over time;
- Based on indicators relevant to British Columbia grasslands that enable assessment of condition and trend; and
- Consistent with government standards and requirements.

cal if we are to achieve grassland conservation and stewardship.

Grassland Assessment Manual for British Columbia – A Prototype for the Fescue Grasslands of the Nicola Valley

Building on the Range Health Assessment protocol developed in Alberta, great progress has been made in modifying this methodology for British Columbia. Last summer, field inspections of lightly grazed sites, relic sites and exclosures were completed to determine benchmark conditions for species composition, soil characteristics, litter accumulation, litter cover, erosion and invasive species specific to the Hamilton Commonage grasslands. More than 40 sites were sampled to develop reference site information specific to these grasslands.

After two years of hard work and building support for this initiative, a revised draft of the grassland assessment tool is complete for the Fescue grasslands of the Thompson-Nicola. Although the current manual is applicable only to the mid-to high elevation fescue grasslands, this prototype and framework is the building block for completing the manual for other grassland types and other regions of the province.

The GCC in collaboration with the Technical Advisory Committee and the consulting team, Solterra Resources, have initiated planning to

RIGHT The manual is designed for ranchers and will include a one-page score sheet based on visual assessments and observations combined with three photographs. The information will be recorded on summary sheets with photographs allowing for annual or multi-year comparisons of results and an assessment of trend over time.

refine the methodology for the lower elevation grasslands of the Thompson & Okanagan. Work will begin this spring.

The project Technical Advisory Committee includes representation from: Ministry of Water, Land and Air Protection; Ministry of Forests; Ministry of Agriculture, Food and Fisheries; Agriculture & Agri-Food Canada; ranchers; Society for Range Management; BC Cattlemen's Association; consulting biologists, ecologist and agrologists; range consultants; Thompson Rivers University, and the Forest Research Extension Partnership (FORREX).

For more information please see the Grasslands Conservation Council at gcc@bcgrasslands.org or 250-374-5787.

The GCC would like to acknowledge the following funders:

- name

Thank You Judy Guichon!

The GCC would like to extend a sincere thank-you to Judy Guichon of Gerard Guichon Ranch for her dedication to grassland stewardship and the Grassland Monitoring Project. Judy and her staff have worked closely with the GCC and the Grassland Monitoring Technical Advisory Committee to develop and test the first prototype Grassland Assessment Manual for British Columbia. The Guichon Ranch has allowed the GCC and its partners to use the Hamilton Commonage grasslands to conduct field surveys and develop the methodology. Judy has also hosted numerous field days for the technical committee and for local ranchers to test the methodology and the manual. Thank you, Judy, for your outstanding commitment to the GCC and to grassland conservation.

UPDATE: Development and Capacity Building

Membership

Members are an integral part of the GCC and without them our organization would cease to exist. They provide financial support and bring their diverse backgrounds and expertise to our organization, helping us to achieve our common goal of preserving and protecting BC's grasslands.

We would like to thank all our members for their continued support as the GCC forges

ahead with key initiatives for 2005 and beyond. We currently have over 200 active members and are confident that, with your support, our membership will continue to grow.

From Grasslands to Giving...

During the recent holiday season the GCC conducted its annual Christmas Gift Campaign. We would like to extend our sincerest thanks to everyone who purchased an annual membership for friends or family. As well, we would like

to welcome all new members to the GCC community.

Many of you have been received and courteously responded to an appeal for help as we continue to address the loss of BC's grasslands to urban sprawl and development. This complex issue is of the utmost importance to the GCC, and we continue to work with governments, First Nations, the ranching community, conservation groups and interested individuals to mitigate the fragmentation and development of grassland across the province. Thank you for your generous support for this important initiative!

Fundraising Committee

At this time of year the GCC focuses much energy and attention on fundraising and capacity building. Only through the development of a successful fundraising program can we ensure the ongoing success of our organization and continue to deliver the multitude of programs, projects and events for which the GCC is known.

We would like to encourage you as members and fellow grassland enthusiasts to continue to support the Council's important work by providing a donation to the GCC and joining in the effort to conserve one of Canada's most endan-

gered ecosystems.

We each bring different experiences, educations and backgrounds to the organization, and our differences allow us to reach a variety of individuals in our respective communities. Let's all work together to help ensure that this unique and beautiful ecosystem will thrive for future generations.

UPDATE: Conservation of Grassland Ecosystems Program



Welcome, Graham

The GCC is pleased to welcome Graham MacGregor to the GCC team as our GIS Coordinator. Graham received his Bachelor of Science Degree from the University of Calgary and subsequently worked in the consulting field in Calgary for two years. From there he moved to Chase, BC where he has lived for the past eight years, consulting in the forest industry. Over this time his project experience includes Predictive Ecosystem Modelling, Timber Supply Review, Fish Inventory Analysis, Ecological Landscape Classifications, Landscape Biodiversity Analysis, Watershed Assessments and many other GIS and mapping projects.

Graham has since moved to Kamloops and enjoys the great outdoors of BC for camping, canoeing, and skiing with his family.

We are very lucky to have Graham on the GCC team and we look forward to working with Graham to deliver the Priority Grassland Initiative. You can contact Graham at 250-371-5269 or graham.macgregor@bcgrasslands.org.

Priority Grasslands Initiative

The GCC is proud to say that the first GIS (Geographical Information Systems) spatial inventory of grasslands in the province is now mostly complete. This is an important milestone, as it literally puts BC grasslands on the map for people to view, understand and conserve.

Over the last four years the GCC has been involved in an extensive inventory of grasslands throughout British Columbia. The Grassland Mapping Project used existing 1: 20,000 Scale GIS data throughout the province, detailed analysis, and consultation with experts at various levels of public and government to create the following important products:

- Inventory of grassland ecosystems in the province and associated vegetation habitats.
- Historical development of grasslands in key regions of the province
- Inventory of rare and endangered species associated to grasslands
- Large scale mapping of major grassland regions in the province.
- Identification of key grassland statistics throughout the province, based on ownership, historical loss and rare species on our grasslands.

With a provincial grassland inventory now in place the GCC is now in a position to move forward with the next exciting phase: The Priority Grasslands Initiative. This initiative will use the grassland inventory in conjunction with other provincial GIS data to identify, prioritize and delineate grasslands for conservation and stew-

ardship throughout the province. This analysis and the resulting recommendations will enable the GCC to work proactively and in partnership with stakeholders to ensure that high priority grassland ecosystems are managed for their long-term integrity and health.

The analysis will help in identifying many ecological, development and socio-economic issues affecting all grassland ecosystems. Grasslands GIS data will have a variety of attributes applied to them. Examples of some attributes that may be included in the analysis include urban development risk, invasive weed risk, rare ecosystems, degree of landscape connectivity and economic forage values. Ultimately, the analysis will help to highlight high priority grasslands, by using a combination of conservation/Economic and threat values.

Included in the analysis will be a regional input process that will help ensure the best possible regional expert consultation and GIS Spatial information available in the province is being applied to the priority analysis.

Recommendations regarding conservation, planning or stewardship could then be forwarded by use of regional strategy documents. The collective development of regional strategy documents will then help form the basis of an overall provincial grassland conservation and stewardship strategy.

The Priority Grasslands Initiative will also create a broad-based GIS spatial data tool that other organisations will be able to utilize for their analysis, research and monitoring of the

grasslands. Such a tool will create the first baseline analysis inventory of grasslands in the province

It is the goal of the Priority Grassland initiative in the first year to complete the analysis of one major grassland region (Thompson-Nicola or Okanagan) and produce extension products for this region that include development of site portfolios, site recommendations, and grassland strategic documents.

Currently the Grasslands Priority Initiative is only in the initial stages. The development of such an extensive inventory analysis poses significant challenges. Available GIS data around the province is varied in date, scale and collection method, requiring each regional analysis to be unique. A region-by-region inventory of available data must first be completed, and assessed for deficiencies or possible data preparation issues. Additional data may then need to be collected before further analysis can proceed. Still, the Priority grassland initiative provides an exciting, necessary and groundbreaking analysis, which will help identify many of the issues occurring on grasslands in our province. It is a project that will allow us to further define a resource about which we still have much more to learn.

The Priority Grassland Initiative would not be possible without the generous contributions and support from a wide range of organizations:

- Ministry of Water, Land and Air Protection
- Ministry of Sustainable Resource management
- The Real Estate Foundation
- BC Gaming Commission
- The Nature Conservancy of Canada
- Ministry of Forests

Threatened Plants

from page 16

rapidly disappearing throughout the Okanagan Valley. It is in these special places where both plant communities and species can thrive, but also where people can come to enjoy and renew. At the same time, the recreationists should keep in mind the importance of these havens for the long-term persistence of biodiversity in BC. We must also not forget the conservation organizations like the Nature Trust of BC, the Nature Conservancy of Canada and the South Okanagan and Similkameen Ecosystems Recovery Working that work diligently to ensure that these special places are set aside.

Editor's note: Common names were used for all plant species for simplicity and accessibility. If you are interested in the Latin names for these species, please contact the GCC at gcc@bcgrasslands.org.

demonstration. The GCC clearly performs a strong supplemental role, ensuring that, through “collaborative environmentalism” or strategic conservation measures, we promote and instil a more holistic approach to planning, decision-making and management of grasslands around the province. Specifically, the GCC is:

- Bringing together a variety of inventory data to complete an analysis and prioritization of grasslands based on ecological criteria, threat analysis and other socio-economic values;
- Working with a wide variety of organizations and partners to provide and improve access to the science and tools for land use planning monitoring and decision-making;
- Providing a scientific and credible baseline for a provincial conservation strategy and for future monitoring and assessment of the grassland resource;
- Promoting a shared-stewardship approach with First Nations, government agencies, stakeholders and communities;
- Providing insight into legislative, regulatory, policy and institutional barriers for conservation and stewardship and offer recommendations and solutions to mitigate fragmentation and development of grasslands;
- Providing and encouraging the use of Best Management Practices for motorized and non-motorized recreation groups;
- Enabling targeted education and extension to municipal, regional and First Nations governments about grasslands and the need for conservation and stewardship;
- Providing the necessary data and tools for uptake by municipal, regional and First Nations governments; and
- Educating the general public about grasslands, their ecological, cultural and socio-economic values and the threats to grasslands.

Many of these activities, from the grassland inventory, the Off Road Vehicle Coalition – developing a regulatory and administrative framework for registration and licensing of ORVs in BC, to reaching agreement on a qualitative methodology for assessing grassland condition and trend, are activities that government and industry have been unwilling or unable to fulfil. The GCC has

successfully facilitated the necessary partnerships while maintaining the level of collaboration needed to implement these projects. The GCC is also playing a legitimizing role through direct participation in land-use planning and resource management initiatives. We are providing and reviewing information, as well as providing viable options and solutions. We will continue to play this important role. As a charity, the GCC will need to be cognizant of maintaining its autonomy. This can be tricky business. However, the partnerships and the ability to collaborate to resolve problems and develop viable solutions with a wide range of organizations both inside and outside of government will go a long way to ensure effective conservation and stewardship of grasslands. It seems the GCC is engaged in a type of “collaborative environmentalism.” Maybe collaborative environmentalism is not such a bad thing after all!

The at least implicit logic of environmentalism, of environmental politics, is to realize a new kind of administration. (Peahlk, 1990: 291)

The GCC Needs Your Help!

BC Grasslands magazine is always looking for articles of interest to our members. If you are part of an organization or initiative working towards grassland conservation and stewardship in BC, please let us know!

Is there an issue important to grasslands conservation in the province that you would like to see covered in an upcoming issue of BC grasslands?

Please contact the GCC's Education and Outreach Co-ordinator, Sarah McNeil, at sarah.mcneil@bcgrasslands.org, or call 250-374-5787 to share your ideas!

BC Grasslands is a bi-annual publication of the Grasslands Conservation Council of British Columbia (GCC). BC Grasslands is intended to serve as a platform for informing readers about GCC activities and other grassland programs across BC and Canada, as well as providing a forum on grassland ecology, range management, grassland conservation and stewardship.

BC Grasslands and the GCC welcome submissions of letters, articles, story ideas, artwork and photographs for each issue. Articles should be no longer than 600 words (300 words for letters to the editor) and submitted as electronic files (preferably MS Word 95 or newer).

BC Grasslands reserves the right to edit submissions for clarity and length. However, every effort will be made to work with contributors to ensure content remains unchanged. Deadline for submissions for the next issue of BC Grasslands is January 2, 2005.

Contributions, comments and inquiries can be made to: BC Grasslands
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In the next issue of BC Grasslands...

Fragmentation and Development: Mitigating the Loss of BC's Grasslands

The September 2005 issue will focus on the fragmentation and development of BC's grasslands. Grasslands are under increasing pressure from urban sprawl and the fragmentation of rural landscapes. The subdivision of large tracts of range land, along with the intensive altering of the native grasslands through development, has led to unprecedented losses. Complex factors ranging from environmental issues to socio-economic pressures to entangled land use policies and regulations are driving this process, and this issue of BC Grasslands will examine these driving forces and begin to look for solutions.

We encourage the submission of articles, photos and other artwork. The submission deadline is July 1, 2005.

For more information, please contact Sarah McNeil at sarah.mcneil@bcgrasslands.org or 250-374-5787.

Please send your submissions to:

BC Grasslands,
954 A Laval Crescent
Kamloops, BC V2C 5P5
Fax: 250 374-6287

*Working
together for the
conservation of
BC's grasslands*

Call for Artists

As the GCC continues to grow, there is an ever-present need for grassland artwork for our publications and communications projects. Images can be drawings, photos or paintings of your favourite grassland landscapes or species. For all you ranchers out there, we'd love to see some of your artwork portraying working grassland landscapes. Please contact Sarah McNeil with your offerings, ideas and inspiration at 250-374-5787 or sarah.mcneil@bcgrasslands.org.

A. R. Beart

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*All grants and project sponsors over \$1,000.

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- Our many dedicated and hardworking volunteers who have donated their time and energy to help the GCC grow and prosper.

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