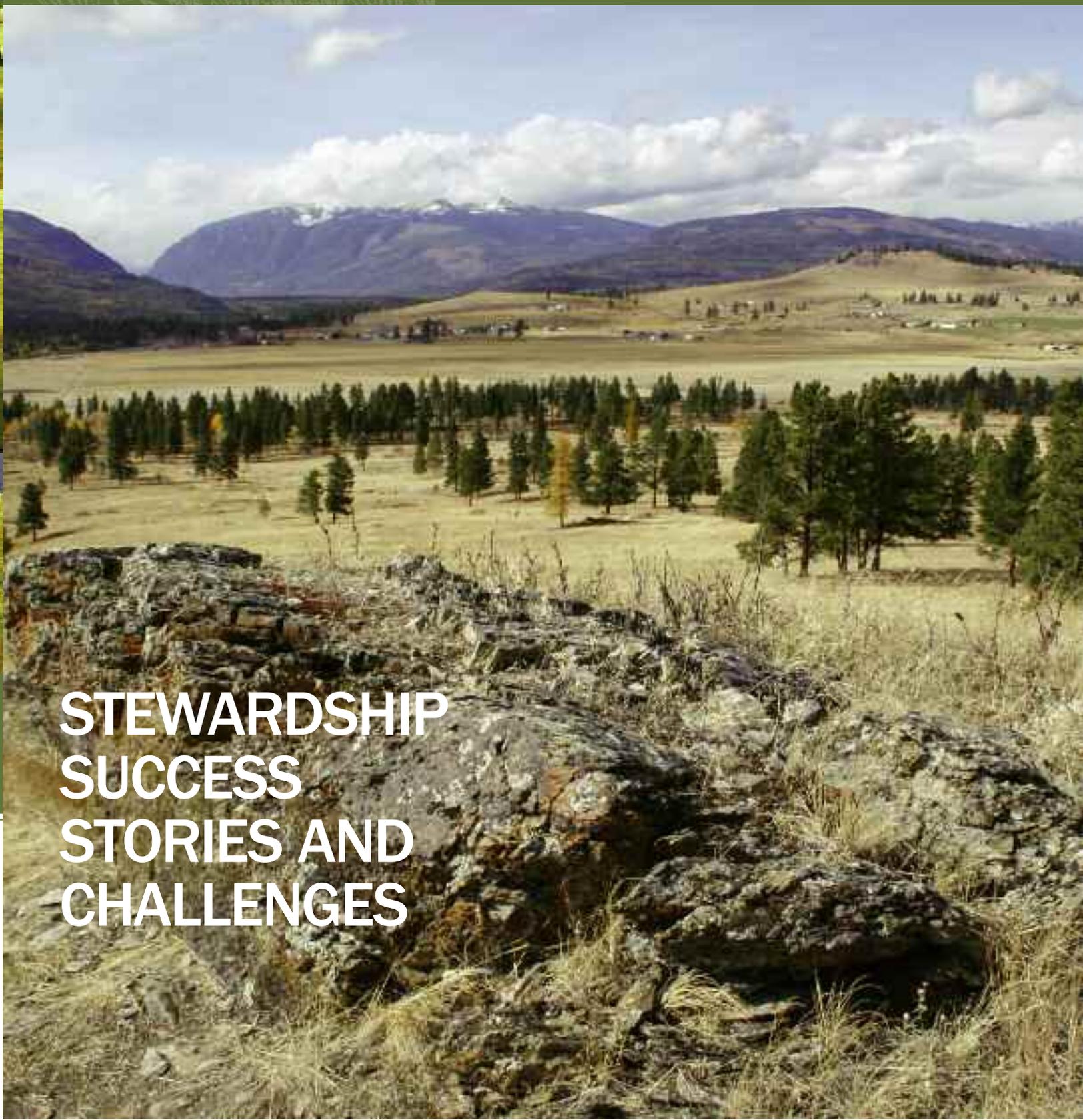


"The voice for grasslands in British Columbia"

BC GRASSLANDS

MAGAZINE OF THE GRASSLANDS CONSERVATION COUNCIL OF BRITISH COLUMBIA

Fall 2007



**STEWARDSHIP
SUCCESS
STORIES AND
CHALLENGES**



The Sticky Geranium (*Geranium viscosissimum* var. *viscosissimum*) is an attractive hardy perennial wildflower that can be found in the grasslands of the interior. The plant gets its name from the sticky glandular hairs that grow on its stems and leaves.

PHOTO BRUNO DELESALLE



BC GRASSLANDS

MAGAZINE OF THE GRASSLANDS CONSERVATION COUNCIL OF BRITISH COLUMBIA

Fall 2007

The Grasslands Conservation Council of British Columbia (GCC)

was established as a society in August 1999 and as a registered charity on December 21, 2001. Since our beginning, we have been dedicated to promoting education, conservation and stewardship of British Columbia's grasslands in collaboration with our partners, a diverse group of organizations and individuals that includes government, range management specialists, ranchers, agrologists, ecologists, First Nations, land trusts, conservation groups, recreationists and grassland enthusiasts.

The GCC's 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; and
- promote the conservation of representative grassland ecosystems, species at risk and their habitats.

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COVER

Wycliffe Wildlife Corridor, near Kimberley, BC, was purchased by the The Land Conservancy in 1999 to augment an existing wildlife corridor owned by the Ministry of Water, Land and Air Protection. Photo by Bruno Delesalle.

Magazine Production

Bruno Delesalle
PUBLISHER

Amber Cowie
MANAGING EDITOR

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Message from the Chair

David Zirnelt



When I was asked to be the new chair of the GCC, I did not have to think twice before agreeing. I was raised in the grasslands near Williams Lake and I know their importance. I also realized that I needed to know more about what was happening in respect to their management. The creation of the Protected Area at Churn Creek happened while I was a member of cabinet and the Member of the Legislative Assembly (MLA) for the Cariboo-Chilcotin. I knew then, as I know now, about the need to balance the judicious and economical use of the grasslands for cattle and ungulates with the protection of the unique attributes of the grassland ecosystems.

My grandfather brought his family to the region looking for greener pastures after enduring seven years of drought in North Dakota. After being away at school and working in Ottawa for a few years, my wife Susan and I returned to the Cariboo to raise our family on a piece of the ranch that had been in our family for 40 years. While we are located in the transition belt between the dryland and the wetbelt where trees and brush dominate, we have an affinity for the drier areas to the west and the south where the major grasslands are located in our region.

Having spent 12 years in the legislature, 10 of those in cabinet serving in the Agriculture and Forestry portfolios,

I hope to assist the GCC to realize its goals by contributing my understanding of public and government processes. I got into politics because I knew we could, collectively, do a much better job of land use planning than was done in the past and I still think we can do better. As climate changes, many grassland species will need an undisturbed natural habitat in order to have a chance at evolving in an environment undergoing rapid changes. We should not exacerbate the threat to so many species by altering the grassland environment with unsustainable development activities. While development will proceed, it needs to be planned to ensure that negative effects are mitigated.

One of my primary goals as the new chair is to see progress in creating a sustaining financial legacy for the GCC so that not so much time has to be spent securing operating funds to do the good work set out in our strategic plan. The GCC has an ambitious workplan; we now need to put the tools we have created, like the Priority Grasslands Initiative, to work for grassland stewardship.

I invite all readers to recruit another member to our organization to help in whatever way they can to assist us in our twin goals of keeping working ranches working and ensuring the naturally productive grassland ecosystems stay intact for generations to come.

Message from the Executive Director

Bruno Delesalle



Many definitions of stewardship exist in the literature that surrounds the topic. After much research, the GCC chose to define grassland stewardship as “the practice of carefully managing land use to ensure that natural grassland ecosystems are maintained or enhanced for future generations.” Similarly, the North American Grassland Conservation Strategy (2003) defines stewardship as “the individual and corporate responsibility of one generation to maintain the natural inheritance that it has received, both for its benefit and for the benefit of future generations. It is a commitment to conserve and maintain the natural features of the land.” The common threads that run through both these definitions are the ideas of caring for the land, using land in a sustainable manner, and taking on the responsibility of providing a healthy environment for the generations to come.

This issue of *BC Grasslands* begins to explore the many facets of grassland stewardship by presenting a series of perspectives on stewardship, including the success story of the Pine Butte Ranch. It is a story of conservation ranching and a model based on partnership and trust,

bringing a family’s vision for succession and long-term economic sustainability together with a shared vision for conservation and stewardship of a valued grassland landscape located on the fringe of a growing urban centre. At the other end of the spectrum, we present a complex story about the historic Ashcroft Ranch, which has been cast into a debate about land use and waste management, issues originating far beyond the ranch gate and its barbed wire fence. Will we choose to dump or not to dump Metro Vancouver garbage in the heart of one of BC’s great ranches, located in the centre of some of BC’s most endangered grasslands habitats? Are the strong stewardship practices being put into effect on the rest of the ranch enough to justify the proposed landfill?

Stewardship is a complicated business, particularly in a society where real dollar values seem to take precedence over nearly everything else. How can we, as an organization devoted to stewardship, begin to ensure that British Columbians become stewards of their own grassland heritage?

...continued on page 27

Education and Outreach

From the depths of HTML coding to the red carpet at the Kelowna Heritage Museum, the Education and Outreach branch of the GCC has been to a variety of places in the past six months to spread the word about grassland conservation in the province of British Columbia.

2007 Symposium Succeeds

The highlight of the spring was certainly the success of our 2007 symposium—*Planning for Change: Working Together for BC's Grasslands*. From June 7 to 9, 2007, the GCC hosted its symposium and annual general meeting in Kelowna at the Coast Capri Hotel. Registrants were treated to a wide array of activities including a field tour at the Department of National Defense grassland property near Vernon, BC, which had everyone talking about the diminutive Master's student Katy White wrangling an enormous gopher snake.

Thursday evening was a night of grassland glitz with a wine and cheese reception held at the beautiful Kelowna Heritage Museum. The symposium proper featured Mike Harcourt as the keynote speaker. Mr. Harcourt addressed issues of sustainability and the importance of considering environmental values in urban planning.

The event generated over 30 new members, elicited a great deal of positive response from the Okanagan region and garnered numerous publicity opportunities for the GCC.



ABOVE Master's Student Katy White introduces a gopher snake to the enraptured crowd at the Department of National Defense grasslands near Vernon during the 2007 symposium field tour.

BC Grasslands Website Launched

Lewis Carroll once suggested that one could get lost going down the rabbit hole. In the late summer, it was apparent that it was just as easy to get lost in the inner workings of the virtual portals that make up the newly revised BC Grasslands website.

To great pleasure and relief, the new website has received numerous compliments and kudos since its launch early September. The widely accessible, simpler to navigate and easier to use version will form the basis for the site in years to come. The site is

based around a portal system—presenting users with introductory screens that direct them to specific pages best suited to their needs. Researchers using the site have already benefited from the site's new design.

BC Grasslands Magazine Takes On-Line Submissions

The creation of the new website has opened up a new avenue for submissions to *BC Grasslands*. A page dedicated to upcoming themes and potential feature ideas has been added to allow new and dedicated writers to mull over topics.

The next issue of the magazine in

Spring 2008 will focus on: The Economy of Grass. The value of grasslands goes beyond aesthetic, historical or societal. The preservation of natural capital, or ecological goods and services, is an increasingly powerful argument in the protection of these areas. The issue will focus on the values of ranching, recreation, species-at-risk and protected regions that go beyond the financial—from ecological goods and services to cultural heritage.

Public Service Announcements Ready to Go

Our two public service announcements on fragmentation and development and invasive plants are completed and awaiting distribution. The spots are being shopped around to various networks in BC. Press kits will be distributed to the following stations: CBC, the Knowledge Network, Global BC, CFJC-TV, BC-TV, CHBC, CKPG, and Shaw TV. Press kits will include: a press release statement with three newsworthy and timely story ideas about the GCC and its programs; a background page introducing the GCC; clippings from past newspaper articles about the GCC; and copies of our PSAs.

Amber Cowie
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Chris Harris Book Launch

Chris Harris' new collection of grassland photography, *Spirit in the Grass: The Cariboo-Chilcotin's Forgotten Landscape*, is now available. Chris is currently in the midst of a provincial book tour. For more information, visit www.chrisharris.com.

Grassland Stewardship and Sustainable Ranching Program



ABOVE An example of fragmentation and development in the East Kootenay, where many grasslands have been divided into small tract properties for housing.

Planning for Change Initiative Influences Policy and Planning

What a year it has been for the Planning for Change Initiative! The project—which started out as a small scale workshop—has blossomed like a balsam root flower, with results sprouting up all around. Our last magazine outlined the initial plans for our North Okanagan workshop; the delivery of the workshop in March strengthened the GCC's relationship with the City of Vernon and the North Okanagan Regional District planning staff, and has started the tumbleweeds rolling. Councillor Buffy Baumbrough, who attended the workshop and was present at the city council presentation by the GCC, moved to have the City of Vernon support the creation of a provincial park that would protect grassland ecosystems. As a result, the city is now working with the GCC in partnership with the Okanagan Collaborative Conservation Program (OCCP) to identify high priority areas for conservation in and around Vernon.

Our second workshop, held in Kamloops in May 2007, showed invitees from local governments throughout the Thompson-Nicola that the GCC and its programs are in full bloom. Workshop feedback indicated that partici-

pants—mostly planning staff and a few elected officials—were engaged and inspired to action as a result of their attendance. The City of Kamloops has initiated a partnership with the GCC to develop an ecological assessment for grassland areas slated for future development to provide urgently needed information to the city's planning department. The GCC has hired a consultant to do a field assessment on areas in Aberdeen, and when the results come in, we will use the stages of the *Priority Grasslands Initiative Methodology* to provide final ranking and priority assignment, as well as recommendations and trade-offs. This project is very important as it sets a precedent for our future partnerships with the City of Kamloops and other local governments, and provides an opportunity to further test and refine our methodology before completing the analysis for the Thompson-Nicola and north Okanagan regions.

Originally, the next workshop was slated to be held in the East Kootenay; however, the seeds had spread after our first Okanagan workshop, and local governments in the south came knocking asking for our assistance. With support from the Regional District of Okanagan Similkameen (RDOS), the GCC

held its third workshop on November 28 in Penticton, where the *Green Bylaws Toolkit* was presented. This time around, we took the extra step of inviting representatives from various advisory planning committees to show them how their roles relate to grasslands conservation through their advisement on land-use planning decisions. Using the successful team of consultants from Holland Barrs, with Deborah Curran providing the planning content, we hope that we made even further strides towards grassland conservation in BC.

The East Kootenay has not been forgotten, however. The GCC staff and board recently had a reminder about how precious and threatened these grasslands are. Our fall directors' meeting took us out to the breathtaking grasslands in this incredible region and gave us a view of the frightening reality of increased development pressure: mainly, housing, recreational properties and golf courses. The economic struggles the ranching community is facing—high grain prices, low cattle prices, little succession and increasing land values—are beginning to show, with the break-up of large ranches resulting in fragmented and degraded grasslands. The good news is there is still an amazing opportunity

to conserve the grasslands left in this area, with land trusts such as The Land Conservancy of BC (TLC) and the Nature Conservancy of Canada (NCC) purchasing tracts of grasslands and maintaining conservation ranches. The GCC looks forward to supporting local governments and conservation organizations in this region with tools and mapping for the increased land-use planning pressures they are currently facing.

The Planning for Change Initiative started out as a little seed that came from a desire to empower local governments to be stewards of the grasslands within and adjacent to their boundaries. Now, the seed is spreading across the country and the grass is looking greener.

Information about Workshops

Our next Planning for Change workshop is being held in the East Kootenay in the spring of 2008. For more information, contact Tasha Sargent at 250.374.5787.

Last spring, Tasha Sargent, Stewardship Planner, profiled the initiative in a presentation at the Land Trust Alliance of BC's annual Seminar Series. A representative from the Canadian Land Trust Alliance (CLTA) asked Tasha to present at the national CLTA Conference in Ottawa in October 2007. Tasha spoke about the GCC's initiative to individuals from all over Canada, and the response was overwhelmingly positive. Many felt that the work the GCC is doing is "cutting edge" and "ahead of its time", with several people asking for more information on the workshop model. Feedback like this clearly shows that the potential for this initiative to facilitate local government stewardship is tremendous.

Progress Made with Off-Road Vehicle (ORV) Coalition

The Off-Road Vehicle (ORV) coalition is on its fifth year and still going strong. In 2007, the government deliberated on this issue and appears to be making some progress on developing a solution. There is strong recognition among politicians and government staff regarding the importance of resolving this outstanding ORV issue. It is highly unlikely

however, that cabinet will entertain new legislation at this stage of its mandate. The most likely scenario is a revision to the existing Motor Vehicle (All Terrain) Act, which currently only encompasses snowmobiles by regulation. The existing act could be revised through a statute revision and an Order-in-Council (OIC) to provide a regulatory framework that would define and include all motorized off road vehicles, requiring them to be registered upon purchase and re-sale. This means an effective registration system would have to be implemented by ICBC. In addition, a revision to the regulatory framework would provide safety, environmental protection, compliance and enforcement regulations.

The problem with revising regulations within an existing act is that the current act has no statutory provisions for a trust fund, as requested by the ORV Coalition. This limitation, however, has a bright side, as government does not need to be part of the trust fund or the management of the funds. The coalition and its associated members can do this on their own. If government continues to pursue the goal of keeping ORV

registration and licensing revenue neutral and affordable, this will allow the coalition and its members to push for a funding solution, be it a trust fund or endowment. These funds would be managed by a dedicated ORV council or other body and disbursed for five program activities as described in the ORV Coalition recommendation report. The trust fund was and continues to be the glue that keeps all 18 organizations on the coalition working together, but let's not forget that we have achieved the remarkable feat of getting diverse organizations to reach consensus on 47 recommendations over a period of three years. In addition, some 30 other organizations and associations have signed memorandums of support. With this accomplishment under our belt, it seems likely that we can surmount the challenge of getting general agreement on a trust fund or another form of long-term financial stability for this initiative.

Government is currently in a consultation phase that will extend into late December or early January. By mid January, the ORV coalition hopes to have a decision from government on a proposed regulatory framework with clear future steps. Keep in mind that an

OIC can happen very quickly once all the pieces are together. Stay tuned!

Conservation Covenants Problematic for ALC

In partnership with seven provincial land trusts, the GCC is continuing its dialogue with the Agricultural Land Commission (ALC) in regard to problems with placing conservation covenants that would restrict future agricultural development or productivity on lands within the Agricultural Land Reserve (ALR). The GCC's main concern is the important forage for both livestock and wildlife that will be lost forever if native grasslands are converted to intensive agriculture or subsumed by development. Maintaining grassland landscapes as native forage is very important for the ranching community as a whole; however, the ALC will not usually approve these covenants as they are held in perpetuity, thereby restricting any other more intensive forms of agriculture forever. Due to many unresolved issues, including the draft *Guidelines for the Preparation and Review of Conservation Covenants in the ALR* that were not accepted by the ALC, the existing committee will expand its membership to include key government agencies and begin to look at alternative tools and approaches to achieve similar conservation and stewardship objectives with the agricultural community. In the meantime, discussions about covenants will continue.

OCCP Officially Opens

The Okanagan Collaborative Conservation Program (OCCP) celebrated its official signing with its partners and invited guests at the Allan Brooks Nature Centre in May 2007. With 24 partners signed on—including five local governments—the OCCP is in the process of setting up its structure, which will determine the focus and priorities of the group. The OCCP has already begun work on some action items, including identifying key priority areas for conservation in and around Vernon, (as mentioned above), and completing environmentally sensitive area mapping for the north Okanagan region. Both of these initiatives have involved GCC staff; both are very important for facilitating local government stewardship of the Okanagan grasslands.

*Tasha Sargent
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Grassland Monitoring Manual



ABOVE Judy Guichon tests out the manual in the Lac du Bois grasslands in the summer of 2006.

A Practical Tool for Grassland Stewardship

The GCC has long recognized the ranchers of British Columbia to be the de facto stewards of grasslands. As a result, the *Grassland Monitoring Manual for British Columbia: A Tool for Ranchers* is an important component of our stewardship program and future extension work with the ranching community.

We are in the final stages of developing and refining the manual. During the past field season, a consultant team was retained to test and refine the manual for the big sage-bluebunch wheatgrass; bluebunch wheatgrass; rough fescue; and short awned-porcupine grass grasslands in their respective regions. The consulting team presented its findings and recommendations to the provincial technical advisory committee (PTAC) on

November 28, 2007. Decisions were required on reference community condition descriptions, threshold levels, and scoring for the five ecosystem indicators: Plant Community Composition; Plant Community Structure; Nutrient and Hydrologic Cycling; Site Stability; and Invasive Plants. In addition, a photo-point monitoring methodology was recommended and selected.

In conjunction with a consulting team, a small committee will take on the task of rolling all regional manuals into one provincial manual and completing all necessary work to ensure a full draft is ready for layout and design by February 2008. A final layout and design of the manual with illustrations, photos and other visuals will be completed by March 31, 2008.

HIGHLIGHTS

What is it?

The manual is a tool for ranchers and range managers to assess the relative condition and ecological trend of their grasslands.

How does it work?

The manual is designed to be practical and easy to use, with sections for each major grassland type. It is based on a field procedure in which five questions are answered and several photographs are analyzed. The questions are scored and totalled together to determine the site's grassland status.

The five questions are:

- 1) **What is your plant community composition?** (Are the expected dominant grass species present?)
- 2) **What is your plant community structure?** (Are the expected plant layers and structure present?)
- 3) **What is the state of your nutrient and hydrological cycling?** (Is your litter mass and distribution appropriate for your grasslands type? Are biological crusts present?)
- 4) **What is your site stability?** (Do you have bare soil? Do you have signs of soils movement or erosion?)
- 5) **Do you have invasive plants?**

The grassland status definitions are:

- 1) **Reference condition** (healthy);
- 2) **Slightly altered** (healthy with some caution relative to mid and long-term trends);
- 3) **Moderately altered** (declining health, need to determine cause of decline, needs a change in management); and
- 4) **Greatly altered** (unhealthy, needs immediate attention, long-term changes required).

Why monitor?

Monitoring is an important part of grassland health as it:

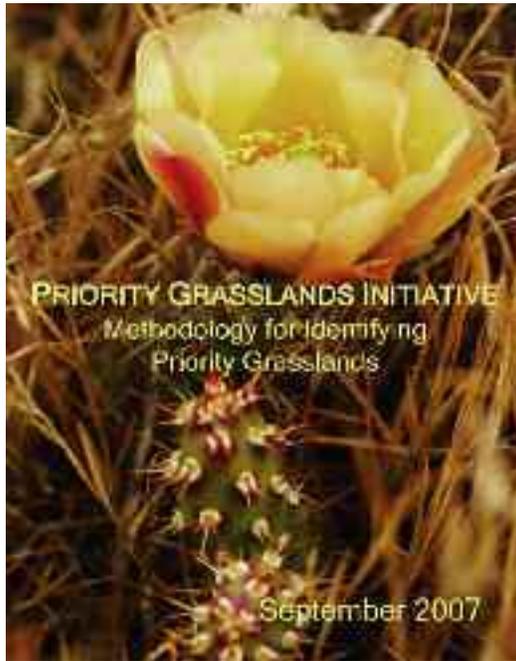
- provides a basis for informed decisions;
- allows for early detection of management problems;
- demonstrates due diligence; and
- promotes sustainable grasslands.

Rangeland Management School

The British Columbia Rangeland Management School is back! The 100 level course will be offered again this winter in the first week of February in Merritt, Tatla Lake, Burns Lake and Fort St. John. The BC Cattlemen's Association encourages producers to come out and improve their understanding of range management. The cost is \$25, which covers materials and lunch. Registration ends January 28, 2008. In the New Year, watch for information regarding the introduction of a 200 level course that will be composed of a field day in June or July. A discussion will be held about the way the *Grazing Response Index* can be used as a tool for producers.

For more information, phone (250) 573-3611 or visit www.cattlemen.bc.ca

Conservation of Grasslands Program



ABOVE The *Priority Grasslands Methodology* was completed in the fall of 2007 and is now being used to identify high priority grasslands in BC.

Priority Grasslands Initiative Methodology Unveiled

The big news of this year (perhaps second only to the employment of new GIS Analyst Ian Mackenzie) was the completion of the methodology for the Priority Grasslands Initiative. After over two years of collaboration with a variety of stakeholders and experts and weeks of “final” edits, the *Priority Grasslands Initiative: Methodology for Identifying Priority Grasslands* was officially brought to life. The methodology details a means to identify, delineate and rank priority grasslands, with the highest priority going to grassland ecosystems that have the greatest ecological importance and are most at risk to loss and degradation.

By categorizing grasslands in each region according to their ecological and economic values as well as their level of threat, the GCC will—for the first time ever—be able to establish the most threatened and most valuable grassland areas in BC. These results will fill an enormous data and information gap in the province and will provide a necessary

tool for others working to achieve effective land use planning and decision-making within British Columbia’s grassland landscape. Already, many local, regional and municipal governments in the southern interior are highly anticipating the results of the Priority Grasslands Initiative.

The first stage (initial GIS data gathering, preparation and analysis) of the methodology has been completed for the Thompson-Nicola and North Okanagan regions. This included mapping the numerous grassland values as defined in the methodology and working through predictive habitat modeling for the seven focal species at risk. The next step in the methodology is the collection and integration of knowledge from top-ranking local and provincial grassland experts that have on-the-ground information regarding species-at-risk and habitat condition as well as information regarding the past and current land use. This stage is slated for December and January, with analysis results to be fully completed for both regions by April 2008.

There are also plans to verify the priority areas identified. Recently the GCC helped prepare a BC Conservation Corps proposal that would support hiring a junior botanist and biologist to conduct ecological assessments of priority areas and verification of species-at-risk predictive habitat models.

On the cover of the methodology document is a photograph of a Prickly-pear cactus—a common and representative grasslands species that grows in low-lying mats. Surrounding the cactus is an invasive species—cheatgrass (gasp!). The discovery of cheatgrass on the cover of the methodology unsettled some GCC staff.

However, in retrospect it seems fitting that such a pervasive weed should be present—as the Priority Grasslands Initiative considers the good and the bad and focuses on exclusion as well as inclusion. Although the cheatgrass is a noxious weed, the analysis cannot simply overlook it as its presence is a reality in the grasslands of BC.

Priority Grasslands Leads to Other Projects

Following the Planning for Change workshop for the Thompson Nicola region, the City of Kamloops invited the GCC to participate in the assessment of the ecological importance of grasslands and associated ecosystems in the Aberdeen area of southern Kamloops (see Stewardship update for further details).

Terry McIntosh, a specialist in cryptogams and expert in grasslands plants (and incidentally, the person who discovered the cheatgrass on the cover of the methodology), and Ken Wright, a wildlife biologist with many years of experience in animal surveys in grasslands, have been hired to conduct detailed field assessments of the area. The results of Terry and Ken’s surveys will be integrated within the Priority Grasslands Initiative mapping methodology to highlight the most important ecological areas of the undeveloped upper reaches of Aberdeen.

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To download a copy of the methodology, visit:
<http://www.bcgrasslands.org/projects/conservation/priorityinitiative.htm>

Prickly-Pear Cactus

Peggy-Jo Broad, Lab Instructor, Thompson Rivers University Department of Natural Resource Science



Prickly-pear cactus, (*Opuntia fragilis*), is one of the grassland perennial plants that many people love to hate, mostly because of the spiny implications of the term “fragilis”, which refers to the ease with which the spiny pads release from the mother plant. The intriguing method of transportation and asexual reproduction is the root cause of the Prickly-pear’s bad reputation, since not even the most tolerant animal can wait too long before plucking these little annoyances free. However, if their free ride takes them to a location with sandy to loamy textured, well-drained, soil the successful start of a new cactus colony is almost guaranteed. These colonies often reach over 30 centimetres in diameter and the plants themselves are generally up to 10 centimetres tall.

Sure, this plant does have nasty barbed spines that attach relentlessly to our socks and pets when we are out for a stroll but let’s pause for a moment and consider some of its more likable attributes. I would be one

of the first to admit that I seek the Prickly-pear cactus out each year and watch it in anticipation until I get the opportunity to witness the glorious show of yellow blooms that it displays in June. Their flowers light up the hillsides and trail edges in such a manner that I can’t help but return for another peek every chance I get until the show is complete for yet another season. This little gem isn’t all about pretty flowers though—there is far more to the Prickly-pear cactus than meets the eye.

Ironic as it may seem, a plant that can induce so many injuries can also help to treat sores and infections. The flesh of the inner pads contains a mucilaginous compound that can be used as a poultice very similar in nature to aloe vera. This inner flesh can also be eaten raw or cooked, but only if you are brave enough to harvest a piece to try! The list of useful products created from this plant also includes a flour-like substance made by grinding the toasted seeds. Many animals fight their way

A painfully misunderstood grassland treasure

through its spiky exterior to feast on the fruits of the highly adaptable Prickly-pear cactus and the pads, surely grateful for the quick spreading mechanism of its travelling pads.

The Prickly-pear cactus, like many cacti, can withstand considerable drought, which makes BC’s grasslands a perfect environment for its habitat. Although the Prickly-pear cacti prefer direct sunlight and a space where they are protected from winter rain and dampness they are very tolerant of cold. This species has even been known to root from broken off pads during the heat of the summer into bone dry soils and still survive! The Prickly pear can be found further north than any other cacti species in the world.

Prickly-pear is listed as a secure species in British Columbia, as a noxious weed in parts of the US, and as extremely rare to extirpated in California. Adaptable, somewhat annoying, yet very useful, I can see how it could be viewed as a weed by some. Perhaps I can even understand that tiny feeling of relief that I’m sure some Californians might secretly harbour towards its absence. It is still, however, one of my favourite springtime flowers in BC’s grasslands. The occasional prickle in my socks is well worth the springtime show I so adore. Take the time next spring to walk along a grassland trail to see the Prickly-pear cactus flowers for yourself and maybe, just maybe, you too will develop a new appreciation for this little wonder. 🌵

Peggy has a BSc. Forestry from UBC, which has led to a strong interest in botany and a great appreciation for grasslands in the Kamloops area.

Tremors in the grasslands

Mike Sarell, Wildlife Biologist, Ophiuchus Consulting



Prior to 1980, if someone offered you \$10,000 for your own wild photograph of a Night snake you would have bought a plane ticket to Arizona or Mexico.

But that has all changed since amateur herpetologist Howard Lacey stumbled across one in close proximity to a rattlesnake den he was studying near Kaleden, south of Penticton.

It's not surprising that this little snake eluded detection in BC until almost 30 years ago. Night snakes, (*Hypsiglena torquata*), spend the bulk of their time underground, venturing up to the surface on warm nights only to move from one area to another. Their ability to burrow in the fine accumulated crumbs from weathered bedrock and sandy grasslands appears to be matched by no other reptile in BC. As predators of amphibians, lizards and small snakes, Night snakes lurk below the surface in search of hiding prey. Night snakes seem to be most abundant where Western

Skinks are common and these probably make up most of their diet.

The features of Night snakes are also similar to other small snakes such as the Gopher snake, Racer and Terrestrial Garter snake. Two quick distinguishing features are the paired, offset blotches on their backs and the copper-coloured eye with a vertical pupil.

Night snakes belong to the family *Colubridae*, which are typically harmless snakes (e.g. Garter snake), but unlike many of their relatives, they have small fangs in the back of the jaws and a mild venom to help subdue their prey. People should not be alarmed though, as they are adamant about not biting a human hand, even when provoked. I've even tried to envenomate myself by prying the mouth open and forcing it to bite but the

NATIONAL PARK FEASIBILITY STUDY

Debbie Clarke, Community Liaison, National Park/Reserve Feasibility Study

The National Park/Reserve Feasibility Study for the South Okanagan and Lower Similkameen is entering its end phases, with final open houses scheduled to be held in 2008.

In 2006, a draft park concept was presented for public and stakeholder review in a series of open houses. The draft concept has made up the basis of the park study. It includes components focused on existing provincial Protected Areas—Snowy Protected Area to the west, and South Okanagan Grasslands Protected Area to the east. The Vaseux Lake area to the north—where a cooperative approach between Parks Canada and the Canadian Wildlife Service is envisioned for the existing Migratory Bird Sanctuary and National Wildlife Area—is also part of the park concept. The concept of this park relies on partnerships with others to advance conservation, while offering programs that connect people to these special places. Because the park concept includes large areas of private land, and many existing uses and tenures, final achievement of proposed park boundaries and management could take decades, based on a willing seller, willing buyer approach.

Since the 2006 open houses, the project team has been working to refine the feasibility study and park concept as we:

- undertake technical studies to assess the possible benefits and constraints of park establishment;
- learn more about this complex landscape from traditional users and stewards of the land (including First Nations, ranchers, and provincial agencies), and about the changes currently affecting this area; and
- understand more about other national parks and their relationship to local communities.

Part of the technical study involves an assessment of social, economic and environmental implications of the proposed park. Over the winter of 2007/ 2008, an independent assessment of the social and economic implications of the proposal will be undertaken by a contracted team of resource economists. This assessment will use a consultative approach to report on implications locally, regionally and beyond. An independent environmental assessment will also be commissioned, and the Grasslands Conservation Council of BC has agreed to play a role in the technical oversight of this study.

The social, economic and environmental assessments will provide important information for informed public input, and for governments to consider when assessing park feasibility.

More information on the feasibility study can be found at:
www.pc.gc.ca/sols.

snake refused this opportunity for defense.

Some species of snakes have live birth and others, like Night snakes lay eggs. Oddly, their nests have never been detected anywhere within their range. It was not until the early spring of 2007 that mating was observed in BC. This suggests that there is little opportunity for gene flow between populations if they copulate shortly after emergence from hibernation. Furthermore, it is suspected that Night snakes do not make long distance travels during the summer and probably have strong fidelity to their denning sites.



ABOVE Though the Night snake carries venom, it will not bite a human hand.

Much of what we know about Night snakes has been discovered in the last decade through rigorous but careful searches. As of 2007, a total of 52 individuals have been confirmed, all south of Penticton. Night snakes are part of that small shrub-steppe ecoregion in the South Okanagan and Lower Similkameen valleys.

The fate of this species is similar to other animals in this region. Even the rugged slopes where they spend most of their time are not immune to the impacts of residential development and road construction. Those snakes that are not directly impacted by development can easily fall victim to road traffic and domestic cats. Fortunately some Night snake sites are on protected lands. Hopefully they are able to persist as the landscape around them is rapidly changing. 

Mike was born and raised in the South Okanagan and operates a small environmental consulting firm out of Oliver. Snakes and bats are his favourite taxa.

Across the Province

Invasive Plant Council of BC Conference

JANUARY 22 TO 23, 2008
RICHMOND, BC

The Invasive Plant Council of BC's annual general meeting (AGM) and conference is a great opportunity for the wide variety of groups and individuals in BC who deal with invasive plant issues to gather together for an informed and productive discussion. This year, the conference's theme is *Preventing the Invasion* and will feature a hands-on field tour as well as numerous workshops on good stewardship, restoration and research practices. To register, visit: www.invasiveplantcouncilbc.ca

Building Sustainable Communities

NOVEMBER 20 TO 22, 2007
KELOWNA, BC

The Fresh Outlook Foundation hosted its second annual *Building Sustainable Communities* conference for officials and staff from local governments throughout the province. Presenters from all walks of environmental life were there, including the GCC's stewardship planner, Tasha Sargent. www.freshoutlookfoundation.org

Canadian Land Trust Alliance Conference

OCTOBER 18 TO 20, 2007
OTTAWA, ON

The federal conference is getting a special mention in our provincial section, as for the first time, it featured one of the GCC's own staff members as a presenter. Tasha Sargent facilitated a well-attended and well-received powerpoint workshop on our Planning for Change Initiative to people from across the country. To learn more, visit: www.clta.ca

Columbia Mountains Institute

OCTOBER 11 TO 13, 2007
CRANBROOK, BC

Participants in the Columbia Mountains Institute workshop on *Ecological Restoration in Southeastern BC: Grasslands to Mountaintops* listened as 20 speakers addressed new initiatives, restoration activities, and research in the region. Posters, displays, field trips, and opportunities for informal networking added to the exchange of knowledge. Themes covered at this conference included: restoration of grasslands and forests at different elevations; rehabilitation of mine spoils; and restoration of wetland and aquatic features. www.cmlae.org

If you would like to submit an update about an upcoming or successfully held grassland event to Across the Province, email gcc@bcgrasslands.org.

JOANNA REID IN HARPER'S' BAZAAR

In June 2007, GCC member Joanna Reid won the *Harper's Bazaar Orange Prize* short story contest in London, UK. The task was to write 2,000 words on the topic of "The Gesture." The story Joanna created is about a grassland fire. It unfolds in a fictional place, that is loosely based on the middle Fraser (south of Williams Lake). An edited version of the story will be published in the November issue of the UK version of *Harper's Bazaar*. Along with publication, Joanna also received a \$2,000 prize and a trip to London for the Orange Prize ceremony.

UBCM 2007 Convention

SEPTEMBER 24 TO 28, 2007
VANCOUVER, BC

The Union of British Columbia Municipalities (UBCM) held its annual convention in Vancouver this year. The theme of the event was *Gauging Temperatures and Forecasting Opportunities: Local Government in a Climate of Change*. The event featured addresses from Stockwell Day, Gordon Campbell and Dr. Thomas Dixon. www.civicnet.bc.ca

Cariboo Chilcotin Conservation Society

ONGOING
WILLIAMS LAKE, BC

The Cariboo Chilcotin Conservation Society (CCCS) continues to promote awareness and conservation of the area's valuable grasslands. The CCCS had previously produced the *Junction Sheep Range Provincial Park* brochure and now a new brochure, *Grasslands of the Cariboo Chilcotin*, covers the rest of the region's grasslands. An accompanying Grasslands of the Cariboo Chilcotin display has also been produced and may be loaned out. www.cconserv.org

Stewardship Centre for BC (SCBC)

ONGOING
PROVINCE WIDE

After over a decade of producing technical resources for stewards, the SCBC was incorporated as a non-profit society in 2006, and held its first AGM in February 2007. The SCBC is working to build a stewardship ethic and to advance stewardship initiatives in British Columbia by providing a centre for information exchange, communications and outreach, as well as by fostering partnerships and collaboration among those participating in stewardship in BC. For more information about SCBC or stewardship works please visit: www.stewardshlpcentre.bc.ca



Ray Van Steinburg has owned the Pine Butte Ranch, located off Highway 95a between Kimberley and Cranbrook, since he returned from service in World War II. His ranching operation has always focused on grassland stewardship and, as a result of his good grassland practices, the Nature Conservancy of Canada approached him in 2004 to secure his land in perpetuity.

PHOTO TRISH BARNES

STEWARDSHIP STORIES

The beauty of Pine Butte

Trish Barnes, Freelance Writer, Trish Barnes Design and Communication

Pine Butte Ranch is located in the centre of the Rocky Mountain Trench between Kimberley and Cranbrook, just north of the small settlement of Wycliffe. Unless you have spent time off of the highway—exploring the open Ponderosa pine forests by foot or driving the slow roads, like the one leading to the ranch—it is easy to underestimate the scale of the trench. Pine Butte is situated within one of its widest sections—a sweeping, grassy landscape nearly 30 kilometres across that plays tricks on the eyes. The wall of the Rockies dominates the eastern view, visually compressing and concealing the lower reaches of the rolling grasslands. Rounded foothills form a softer profile to the west, before they, too, end at the abrupt rise of the Purcell mountains—a thickly forested mountain range that is millions of years older than the Rockies.

Pine Butte Ranch radiates out from a distinctive outcrop of rock called Lone Tree Butte. The ranch contains a lake, several hectares of irrigated pasture, over 250 kilometres of fence and all the modest, tidy trappings of a mid-sized operation that has worn away any potential inefficiencies over the years: a one story house, various garages and sheds, and a three-story barn built early in the last century.

Pine Butte is one of western Canada's most productive mid-sized ranches. The 300 or so prize-winning Horned Herefords that feed on its 528 hectares (1,306 acres) and the adjacent Crown range often weigh in on the plus side of a tonne and are the very emblem of bovine health: with their curly heads and glistening noses, they lack the bloated bellies that sometimes give other cows a comical silhouette. Instead, Pine Butte's livestock have been recognized in BC and worldwide for their "gainability," how much high quality meat they produce—one specimen, originally named "2L," and later dubbed "Grand Champion," set a world record as the top

gaining animal in 1980.

The ranch is also productive in other ways. It is part of an important wildlife corridor—providing critical habitat for herds of elk in late winter to early spring, which is the leanest season of the year—and it harbours a number of BC's red and blue-listed animal species, including badgers and Lewis' woodpeckers. And then there are the grasses.

Clumps of tough but succulent bluebunch wheatgrass and rough fescue, plus the more delicate, slightly blue Junegrass thrive on the slopes of the ranch. These crucial forage species are dwindling in British Columbia, losing ground to forest encroachment, rural development, poor grazing practices and the persistent spread of noxious weeds. Still, Pine Butte, a working ranch, occupies—indeed, it exemplifies—one of the largest and healthiest contiguous pieces of mixed-grass prairie in the East Kootenay, largely due to the stewardship practices of owner Ray Van Steinburg who has been able to balance healthy grazing with healthy grasslands for years. Van Steinburg's admirable stewardship prompted the Nature Conservancy of Canada (NCC) to enter into a partnership

with the ranch two years ago to ensure that the property would be safe from development.

"Pine Butte Ranch is absolutely amazing," said Dave Hillary, Program Manager with NCC who worked with Van Steinburg, to secure the property. "It's the most spectacular grassland in this area."

Bucking the System

In 1952, Ray and Mae Van Steinburg took over an abandoned ranch near Wycliffe, in the St. Mary's Prairie. They were ready to start a family and Ray, disappointed with the taxi-driving business he had set up in Kimberley after returning



Feature

from World War II, was looking for a way to make a living that would make a difference.

“I thought I could help more people by getting into the agricultural business than anywhere else,” said Van Steinburg, whose conversation often circles back to his desire to serve his fellow man and future generations.

With moderate experience in ranching—he was born on a farm in Saskatchewan and worked on some BC ranches



ABOVE The vistas of Pine Butte are a compelling example of the ways that good grazing stewardship can improve grassland health.

before he joined the military—the couple developed a ranch management program at odds with the prevailing practices.

“Before we started here, there was a management program laid out for us from Victoria, by someone with the ink not dry on his certificate yet,” said Van Steinburg. “The program was far removed from here, far removed from Mother Nature and what she is doing here.”

The Van Steinburgs took matters into their own hands with the intention of increasing productivity.

“We changed our pasture management program through proper grazing techniques—timely grazing on different species,” Van Steinburg said. “If there is a species that is not wanted for production, there are certain times you can graze that species and it will wipe it out, or weaken it so the more useful growth will come on and do a better job for you.”

And how did they know which species were the most productive at any given time?

“Animals know when that feed is ready. We don’t. They know what to eat and they know when to eat it,” he said.

Over the years, the Van Steinburgs kept to a simple philosophy while they implemented water conservation and land stewardship programs, including riparian fencing, off-stream water developments and pasture rotation.

“It starts with the soil,” said Van Steinburg. “You’ve got to keep the bacteria, the bugs, the worms, the bees, the birds

and everybody happy. And if they’re all happy, the soil is happy—and it’s productive.”

Conserving Pine Butte for Good

In 2004, the NCC approached the Van Steinburgs to discuss options that would secure the ranch from development in perpetuity. Several land trust organizations are active in the Wycliffe area and all had recognized Pine Butte’s grasslands as being a crucial component to the health of the larger ecosystem.

“We were first approached by the East Kootenay Conservation Program (EKCP), which is a collaborative land trust organization working in the area,” said Hillary. “We self-identified as the organization that would take the lead on the project, based on what the Van Steinburgs indicated they were interested in doing.”

Hillary said that the collaborative approach of the EKCP simplifies the process for landowners. “That way the landowner doesn’t have to navigate the various organizations that are out there. It makes it easier for them.”

Van Steinburg was as committed to protecting Pine Butte’s rare ecosystem as he was to ensuring the land would remain a working ranch.

“We looked into this quite a little bit before we made our move,” he said. “Three years ago, we started to enquire into which organizations were doing the most in what we thought was going to be the most benefit to the most people eventually. This is why we sat down with the NCC—their thinking is a little closer to ours.”

The impact of grazing—which can occasionally be damaging to sensitive ecosystems—is one aspect that the NCC always examines before undertaking a project; in the case of Pine Butte Ranch, said Hillary, the grasslands were “definitely none the worse for wear.”

By May 2006, the NCC had secured funds from several organizations and had purchased nearly 200 hectares of Pine Butte Ranch—a parcel that included Lone Tree Butte and its environs. The Van Steinburgs retained access through two successive long-term leases. The area was chosen when NCC biologist and agrologist Gary Tipper determined the area to be one of the most ecologically sensitive parts of the ranch. (And, as one of the southern trench’s most visible landmarks, the butte attracts more than its share of interest from real estate developers and ATVers alike.)

In turn, the Van Steinburg family donated a covenant over the remaining 333 hectares of the ranch—all of their titles—to the NCC. The titles still belong to Pine Butte Ranch; the donation was an eco-gift that nailed down Van Steinburg’s commitment to keep the land secure from development.

“We have given covenant over all of these titles together,” Van Steinburg said. “We can’t sell any portion of these titles—we could sell the whole ranch—but to break it up in pieces to sell it for somebody to come just to sit and look at the Rocky Mountains: I can’t do that and I don’t want that. That was the idea going into this.”

Funders for the purchase portion of the project included

the Tula Foundation, the Rocky Mountain Elk Foundation, the Habitat Conservation Trust Fund, the Columbia Basin Fish and Wildlife Compensation Program, Columbia Basin Trust and the North American Wetlands Conservation Act.

“Pine Butte is one of the province’s great ranches—a successful family enterprise with a solid record of environmental stewardship,” said Christina Munck of Tula. “We were particularly struck by the long term commitment we saw to sound management and good conservation practices.”

Munck added that Tula was happy to support a partnership between the ranch and the NCC that would help keep the grasslands productive and healthy.

Other conservation organizations in the East Kootenay like The Land Conservancy of BC (TLC) have been working with the NCC for several years to secure a bigger block of grassland in the area: another purchase totaling 370 hectares was made adjacent to Pine Butte’s 164 hectares, which will help protect the backbone of a major wildlife corridor.

Since 1995, when the province of BC recognized covenants as a legitimate tool for conservation purposes, numerous land trust organizations beefed up their existing programs. Now the Land Trust Alliance of British Columbia has nearly 30 member trust groups working to meet the increasing demand for on-the-ground conservation projects from several sectors, including agriculture. The federal government’s move in 2006 to eliminate tax on capital gains for certified ecological gift donations, (though unfortunately for the NCC it was not retroactive), made the vision of land donations even more attractive to cash-strapped ranchers, who have suffered numerous economic blows in the last several years while seeing the signs of development getting closer and closer to their properties.

Golf Courses and Condos

On the bench above the St. Mary River, not 10 kilometres from Pine Butte Ranch, excavators have been busy scraping the thin skin of organic matter off the ground’s surface to expose the tan-coloured mineral soil. A water trap (one of six such features planned for a new 19-hole golf course and its future community) has been neatly gouged in a spot once favoured by grazing deer. Swathes of forest have been removed to make way for 590 properties that will be built around the course.

The development’s 227 hectares of land were purchased from private landowners; there was no public process involved in the deal. The City of Cranbrook wasted no time in applying to the provincial Ministry of Community Services for a boundary expansion to encompass the development, which was granted this past October.

“I can’t speak for the agricultural community,” said Hillary. “But I think they see the march of progress and the rapid rate of change as a negative thing. And they kind of want to draw a line in the sand—they see it happening but they think, it’s not going to happen on my ranch. They are trying to keep the agricultural industry viable.”

Rising property values are adding another layer of com-

plexity to the work of conservation groups. As one of the main tools they use to secure treasures of biodiversity, like the well-stewarded Pine Butte grasslands, is outright land purchase, the organization is more dependent than ever on creating new partnerships with funders.

“It’s an ongoing challenge, from the land trust organizational standpoint,” said Hillary. “There has always been a limitation on the amount of money we have available for conserving land.”

But even land prices driven sky high by a real estate market focused on recreation and leisure activities are not stopping people like Van Steinburg from using the available tools—like conservation covenants—to protect their land for the long term. For him, it comes down to the life lessons he brought back from his time as both a soldier—he saw combat at the Battle of Normandy and was the recipient of five medals of honour—and as a member of a group drafted by the Canadian government to stay on in Europe after the war to assist in rebuilding and reorganizing.

“What are the necessities of life?”

Van Steinburg asked, counting them off on his finger. “First requirements: Food. Shelter. Clothing. And recreation. And that’s the order in which they come, too.”

May Van Steinburg passed away last year. The Van Steinburg’s son, Ron, is taking over the ranch along with Pine Butte’s long-time manager, Hugh McLuckie.

Ray Van Steinburg, now 85, is still busy, whether it’s lobbying government officials to give more support to the agricultural industry or hosting border collie championships on the same field, just behind the Van Steinburg home, where calves are born every spring.

A Lasting Legacy

Ranchers face many challenges as landowners. Their livelihood is tied up in their land and many factors—from drought to low compensation to border shutdowns—can create disturbances that commonly terminate in bankruptcy. Deals such as the one struck at Pine Butte, in which a rancher is paid for a portion of his land and donates a conservation covenant over the rest (retaining access to both) are appealing to more and more ranchers.

“I think this is a pretty compelling vision for a landowner,” said Hillary. “In fact, the biggest problem the NCC faces now is lack of capacity. We’re limited by funding and by people to do our work. It’s not like there aren’t enough projects out there to do—there are more than enough.”

“To break [the ranch] up in pieces to sell it for somebody to come just to sit and look at the Rocky Mountains: I can't do that and I don't want that.”

Trish Barnes is a writer and researcher who specializes in sustainability topics. She operates Trish Barnes Design & Communication from her home in Cranbrook, BC.

STEWARDSHIP STORIES

Ashcroft Ranch

Amber Cowie, Education and Outreach Coordinator, Grasslands Conservation Council of BC

On the surface, the 4,200 hectare (10,500 acre) Ashcroft Ranch—situated in the south central interior of British Columbia—is a healthy working ranch that has been in operation since the middle of the nineteenth century. But the Ashcroft Ranch is also a lightning rod that has attracted and invited pivotal struggles in BC's cultural, economic and environmental history to play out on its grounds.

From gold rushes to garbage dumps, in every era of its existence, the ranch has been a backdrop to provincial and local efforts to balance good grassland management and deeply held environmental values with economic realities.

In the mid-nineteenth century, the ranch suffered extensive damage from overgrazing during the frenzied race to the Cariboo gold rush. Over one hundred years later, in the tumultuous energy seeking period of the 1970s, BC Hydro proposed the construction of a coal-fired power plant in nearby Hat Creek that threatened the environmental integrity of the area. (The proposal was later withdrawn due in part to intense provincial protest regarding the air pollution the plant would cause). Currently, the ranch is embroiled in what might be the most complex struggle yet. A proposal from Metro Vancouver (formerly known as the Greater Vancouver Regional District) to create a landfill on the ranch for the Lower Mainland's waste has stirred up controversy across British Columbia for nearly seven years. The fate of the ranch will likely be decided by early 2008.

Lay of the Land

In 2000, Ashcroft Ranch was purchased by Metro Vancouver (MV). Due to its dry, arid climate, the city's engineers selected the site as an ideal location for a new landfill to replace the existing dump in the nearby village of Cache Creek once it reached capacity in 2008.

The submission of the Ashcroft Ranch landfill proposal to the Environmental Assessment Office (EAO) caused controversy to swell throughout BC. Letters from private citizens, non-profit societies and environmental groups were sent to MV and various concerns were voiced by key interest groups, First Nations, local governments and individual citizens during the public and private consultations the MV held as part of its application to the EAO. During this phase, the Grasslands Conservation Council of British Columbia (GCC)

came out in opposition to the proposal.

"The lower and mid-elevation grasslands found on Ashcroft Ranch are among the most endangered and threatened grasslands in our province," said Bruno Delesalle, Executive Director for the GCC. "More than 35,000 hectares of native grasslands have already been lost to agricultural conversion and urban development in the Thompson and Nicola basins alone. The location of the proposed landfill in the middle of the ranch will fragment these valuable grasslands causing further degradation to the surrounding landscape while directly impacting red-listed plant communities and the wildlife that depends on them."

For the GCC, as well as many other British Columbians, the prospect of putting a landfill on endangered grassland ecosystems is unthinkable, said Delesalle.

"The mere fact that this proposal is being given any consideration shows that grasslands and range values must be given higher recognition and attention in BC," said Delesalle.

On June 7, 2005, George Abbott, former Minister of Sustainable Resource Management, suspended the Ashcroft Ranch Environmental Assessment proposal, encouraging MV to put out a call for other possible waste management sites.

By August 2006, 23 proposals had come in. MV commissioned Dillon Consulting—an independent environmental consulting firm—to create a short list, which initially included: (a) the original proposal at Ashcroft Ranch; (b) the creation of a landfill with a bioreactor at Teck Cominco's Highland Valley Copper mine near Logan Lake; (c) the expansion of an existing landfill near Fort St. John; (d) the baling of solid waste at the existing Coquitlam transfer station which would be barged to a newly developed site on Vancouver Island; and (e) a major expansion of the current Cache Creek landfill. The short-list has since been modified to eliminate the baling and barging to Gold River (based upon a review conducted by MV), and two other alternatives have been added: the use of the existing Beaver Valley Landfill in Alberta and the Rabanco Landfill in Washington.

Dillon is currently in consultation with the First Nations, local governments and communities involved in the short-listed proposals. The evaluation is set to be completed by March 2008, at which time a recommendation will be made



The Ashcroft Ranch, located in the southern interior grasslands, is a working ranch owned by Metro Vancouver that runs over 850 cattle and a profitable hay operation. The ranch is currently the proposed site for a controversial land-fill project.

PHOTO COURTESY METRO VANCOUVER

to the MV board. MV will then once again seek ministerial approval from the Environmental Assessment Office and the Ministry of the Environment for the selected project.

The Ranch's Operations

Until the recommendation is made, the potential landfill at Ashcroft Ranch will remain in a holding pattern. The stewardship practices currently in operation on the working ranch, however, have been in effect since the original purchase of the property seven years ago.

“When MV purchased the ranch in 2000, we made the following commitments,” said Dawn Ross, Ashcroft Ranch Project Coordinator for MV. “We wanted to continue the operation of the ranch, retain contiguous parcels of land, protect and enhance the agricultural integrity and productivity, promote public understanding and hire experienced ranch management.”

Ross believes that MV has been successful in fulfilling its commitments to stewardship and sustainability, in part due to its decision to retain Paul Ford Ag. Services Ltd. to operate the ranch. For MV, the environmental protection measures and stewardship practices that have been introduced on the ranch far outweigh the environmental damages that may be incurred by the creation of a landfill. The ranch now runs a cow / calf operation with 850 cows, 47 bulls and roughly 50 yearlings being held over. Agricultural investments in hay production have resulted in an operation that supplies commercial and private ranches across the country. A comprehensive grazing rotation schedule has been put into place on the ranch's deeded land to prevent overgrazing and extensive monitoring is conducted on the ranch's grassland and riparian areas to ensure the success of all practices on the ranch. As a result, MV has managed to reduce the weeds on the property as well as to improve the health of the expected plant communities in the pastures.

Dennis Ranahan, Senior Engineer and Landfill Program Manager for the MV, said that the implementation of a comprehensive management plan for the ranch has had a resoundingly positive effect on the ranch's grasslands.

“At the beginning of this project, we recognized that this would have an impact on the grasslands and that's why we've made a commitment to improve the agricultural integrity and ranching operations,” said Ranahan. “We're trying to do more than equal the impact of what we're removing from the system by improving the surrounding quality.”

From the MV perspective, said Ranahan, the benefits of their proposed publicly owned site are clearly apparent. When profit is taken out of the equation, said Ranahan, the operator has the ability to make grassland management a clear priority.

The landfill will occupy no more than five percent of the entire ranch property and it will be completely fenced off from the remaining grassland, said Ranahan. Years of modeling and research have gone into ensuring that the geomembrane liner and leachate collection system will ade-

“We're trying to do more than equal the impact of what we're removing from the system by improving the surrounding quality.”

quately prevent leachate from leaking into the ground or water supply. From the original purchase of the property to the present day, said Ranahan, MV's intention has always been to protect the grasslands from any possible contaminants while increasing their overall health through good stewardship practices.

“Maintaining the grasslands and maintaining the herd is first and foremost in our minds,” said Ranahan. “We have put initiatives in place to not only maintain the grasslands, but also to maintain the environmental integrity overall in terms of water management, grassland management, while monitoring any potential impact or pollution we might have. Our plan is to ensure that as a ranch we can set an example in terms of sustainability.”

MV has also been working diligently within their own municipality to reduce the strain on landfills by introducing the Zero Waste Challenge, a comprehensive and strategic waste reduction plan, said Ranahan. Since 2000, MV has increased its recycling rate significantly and measures such as organic waste recycling, bans on recyclable goods in curbside trash and education programs are being implemented to reduce the amount of trash going into landfills overall. On a larger scale, MV is also putting together a Request for Proposals that will echo that which was put out in 2005—only this time, the hunt will be for waste to energy conversion projects. Ranahan said MV hopes to establish additional waste to energy facilities within the region by 2012 to compliment its existing waste to energy facility in Burnaby. If expansion of the program is successful, MV believes its need for landfills will be significantly reduced. In the interim, however, a landfill to take over the nearly full site at Cache Creek is necessary and the climatic and geographic characteristics of the interior's grasslands make them the ideal spot, said Ranahan.

“It's a very difficult balance,” said Ranahan. “The attributes of the area that have attracted the landfill to the interior grasslands are the same reasons why we have delicate species and an environment that we want to protect. The two are off-set and it makes it really challenging.”

The Beginning

The village of Ashcroft is a small town of less than 2,000 people located on the Highland Valley Plateau, approximately 340 kilometres northeast of Vancouver. The plateau is one of the driest regions of the province with average rainfalls of roughly 130 millimetres per year. For years, the community was ideally located close to Highway 1—a major transportation route for both commercial operations and travelers.

Both Ashcroft and its neighbouring village Cache Creek grew up as service centres for the highway. Hotels, motels and restaurants were the staple of the region's economy.

In 1986, the construction of the Coquihuala—a highway that shaved kilometers off the trip between interior destinations and Vancouver by bypassing Cache Creek—proved devastating to the two communities. In a bid to revive the local economy, Cache Creek's city council put together a complex plan to haul the interior's woodchips to paper mills on the Lower Mainland and return full of garbage that could be dumped into a newly created rural landfill. MV soon entered into a partnership with Wastech Services and the landfill was opened on February 28, 1989. According to Mayor John Ranta of Cache Creek, the initial transition from a community reliant on service sector industries to waste management had a few bumps, but the end result has been entirely positive for both Cache Creek and Ashcroft.

"Between 1986 when the Coquihuala opened and 1989, when the first tonne of waste was deposited at the Cache Creek landfill, there was strong debate in the community as to what we should do," said Ranta. "In 2007, however, I think it's clear that the experiment has proved to be a resounding success. I think you would be hard pressed to find anyone opposed to the industry in our local area."

The landfill, which currently employs over 110 people directly and 55 people indirectly and takes approximately 16 percent of the waste generated in the Lower Mainland, has been a coup for the small community, said Ranta. Environmental measures such as the creation of a citizen's Landfill Advisory Committee that makes weekly visits to the landfill to act as the public's watchdog (a clause that is also built into the Ashcroft Ranch proposal) have relieved a lot of the initial fears regarding damage to ground water and the surrounding grasslands. Revenues from the dump have allowed the council to eliminate their debts and improve the infrastructure of the town. Surplus funds from the site are put towards a post-closure maintenance fund, (which now stands at \$9 million), that will be used to maintain the landfill site in perpetuity. According to Ranta, the landfill has even allowed the council to lower property taxes for citizens who are now paying less per year than they did in 1990.

"It's dramatic what we've been able to accomplish," said Ranta. "It would be devastating if either Ashcroft or Cache Creek was not chosen as the final site in this round—not just for our local economy but for the state of the environment in the province. What we've got in Cache Creek is the most environmentally sound solution that could be designed for the needs of Metro Vancouver."

With the Cache Creek site close to capacity and the future of the site in Ashcroft unclear, Ranta is worried about the economic impact on both villages.

"The stall in the process has been difficult for us," said Ranta. "It puts some uncertainty into the future well being of the local area, which is unsettling and discomforting for local

elected people in both villages. We're working on it every day to ensure that this industry is kept alive in our town."

The Opposition

The grasslands of the Ashcroft Ranch have sustained ranching operations for nearly two centuries. In the beginning, the land was owned by the Cornwall family, who came over from England to try their hand at ranching. The Cornwalls settled early in the sloping valley of the interior grasslands, with applications for their first water license dating back to the mid 1800s.

For members of the Cornwall Watershed Coalition (CWC)



ABOVE The grasslands of Ashcroft Ranch are home to many red and blue-listed species at risk.

and other concerned citizens across the province, the history of grassland management and stewardship on the Ashcroft Ranch is just one of the many reasons the Ashcroft Landfill should be stopped in its tracks.

Joyce Thayer, an environmental lawyer who runs a private practice in the Lower Mainland, was contacted by the CWC due to her previous work in environmental law in BC. Her primary frustration with the landfill proposal is that the amount of money and time being spent on investigating landfill options is far greater than that being put towards reducing the waste stream overall—even in this year's budget. Though the MV has announced its commitment to the landfill replacement consultation process and the overarching goal of zero waste, significant funds are still being allocated to the Ashcroft Ranch. If those funds were put towards an aggressive commitment to cutting organic matter

“...as stewards of the ranch, they seem to be doing a very good job. But it’s precisely because they’re stewards of the ranch that putting a landfill on the grasslands is a such an abomination.”

out of the waste stream, the district could continue using landfills in the Lower Mainland without having to ship residuals to the interior’s delicate ecosystems, said Thayer.

“Our first goal should be to eliminate the need for a landfill altogether, but if there is going to be one, they couldn’t have picked a worse site,” said Thayer. “I understand that the ranch is operating very well and it could be a positive model for that type of operation. So as stewards of the ranch, they seem to be doing a very good job. But it’s precisely because they’re stewards of the ranch that putting a landfill on the grasslands is such an abomination.”

For Helen Spiegelman, board member of the Product Policy Institute (PPI) and former president of the Society Promoting Environmental Conservation (SPEC), the issues surrounding waste management in the Lower Mainland are both local and global in scale.

“When I first found out that we were having our garbage shipped up to the interior’s grasslands without permission, I was embarrassed and furious at the fact that MV was planning to bury our garbage in your grasslands in my name,” said Spiegelman. “I want our region to take responsibility for its waste and that means the people who generate it as individuals and businesses need to be told what to do with it and asked if we’re willing to buy a ranch to hide our waste. Zero waste means managing waste in a cradle to cradle structure—not just identifying the waste and figuring out which landfill it should go to.”

The creation of an effective and sustainable waste management model in the Lower Mainland might need to be painful to be effective, said Spiegelman.

“Disposing waste [in Vancouver] is too easy, too convenient and too cheap,” said Spiegelman. “What we have now is an infinitely generous, seemingly limitless system where everything we don’t want anymore we just put out in the back lane and let someone else figure out what to do with it. And what they’re doing with it is potentially destroying yet another section of grassland.”

Margot Landel is a direct descendant of the Cornwall family, the original settlers of the Ashcroft Ranch. Her family has lived in the area for over a century and the potential landfill spurred her decision to help found the CWC, on which she acts as a director.

“There are huge values beyond economic that need to be considered here,” said Landel. “The natives here often say that you have to live your life looking seven generations into the future—but people here aren’t doing that. It’s certainly true that if a landfill wasn’t built here, the community would suffer an economic blow. But if you look into the future, how can the action of taking garbage and dumping it into the ground even be considered?”

For Landel, the landfill would compromise every aspect of

the environment that she—and her ancestors before her—chose to call home. The increased transport from trucks would have a significant impact on air quality. The potential for leachate leaking into the ground and the underground aquifer that runs close to the proposed site are also extremely troublesome, she said.

“The idea of the Ashcroft Ranch being a stop-gap solution until other methods can be developed is damaging,” said Landel. “It’s damaging to the people in this area, it’s damaging to the overall air and ground quality in the province. Air, ground and water pollution are all things that we need to be working to eliminate—not propagate.”

Landel is not the only local resident who stands in opposition to the landfill at the Ashcroft Ranch. For Ermes Culos, citizen of Ashcroft, the concept of basing the local economy on taking garbage was flawed from the outset.

“Money has been the driving factor here since the beginning,” said Culos. “Neither Ashcroft or Cache Creek would stoop to receiving garbage from the Lower Mainland unless there was some kind of profit involved. And it’s true—a project like this does involve a significant amount of jobs and that is the line we were given from the beginning. Coming from Mayor Ranta, the rhetoric is something along the lines of, ‘if we don’t have a dump, we will die.’ But what the mayor will not accept as a possibility is that had a dump not been created, another industry could have grown that would provide even more jobs—perhaps tourism. There are all sorts of communities in BC that thrive without dumps.”

The End

The proposed landfill at Ashcroft Ranch has been and will continue to be a galvanizing issue in BC—perhaps in part because the issues surrounding the potential dump site are the same issues that all British Columbians, from the premier to pre-schoolers, are seeking to address in this province. While striving to find a balance between the excesses of North American living, the delicate environment of British Columbia’s grasslands and the struggles of resource-based rural communities, the proposed Ashcroft Ranch landfill clearly underlines the pressing need in the province to address the issue of waste management and grassland conservation from all sides.

“This is not just a conflict about landfills or the lack of recognition given to rare grassland ecosystems in our province,” said Delesalle. “It is a conflict about the incremental loss and fragmentation of ranchlands; the cumulative impact and spin-off effects of grassland conversion and the potential damage from roads, trails and invasive plants. It is also about conservation in a world where growth, development and dollar values take precedence...where stewardship is at odds with current land use trends and basic economics. It is a complicated story not easily solved, one that only society can change at the broadest level.”

Amber Cowie is the Education and Outreach Coordinator for the GCC. She currently resides in Kamloops, BC.

Partners in Flight & the CIJV

Tanya Luszcz, Partners In Flight BC/Yukon Great Basin Program Manager, Canadian Wildlife Service



ABOVE Western Meadowlarks are just one of the bird species the PIF is working to protect.

CIJV & STEWARDSHIP

Nancy Mahoney of the Canadian Wildlife Service, in partnership with Simon Fraser University (SFU), BC Parks, the Upland Birds Society and rancher Lawrence Joiner, is currently studying the effects of different levels of cattle grazing on native grassland vegetation and the resulting effects on CIJV focal bird species like the Western Meadowlark and the Columbian Sharp-tailed Grouse. This summer, researchers counted and measured plants and assessed bird productivity at the OK Ranch near Clinton BC, in the Churn Creek Protected Area and Junction Sheep Range Provincial Park. At the end of the three year project, researchers hope to work with range managers and ranch operators to develop and implement Best Management Practices (BMPs) for the stewardship of rangelands to benefit native breeding birds.

“Once each year, I get up very early on a June morning and do a Breeding Bird Survey along a standard 25-mile-long route in the Okanagan Valley. When I began this survey in 1973, I used to count about fifty meadowlarks along my route - they were the commonest species on my list. For the past six years, I’ve only heard about twenty each time, and robins have replaced them at the top of the list.”

Richard E. Cannings, *An Enchantment of Birds*

It was alarming declines like these that spurred grassroots bird conservationists to initiate Partners in Flight (PIF) in 1990 in the USA. Today, Partners in Flight is a coalition of governments, non-governmental organizations, academic institutions, First Nations, industry and other citizens with the common vision to maintain the health of bird populations and their habitats. It is active across North and Central America and developing in South America. PIF has grown to become the landbird component of the North American Bird Conservation Initiative (NABCI). More regionally, PIF represents the landbird component of the Canadian Intermountain Joint Venture (CIJV), an all-bird, all-habitat joint venture designed to regionally implement NABCI in the Canadian portions of the Northern Rockies and Great Basin Bird Conservation Region.

PIF promotes a grassroots approach to ‘keeping common birds common’ and ‘helping species at risk’ through multi-interest partnerships. It uses the focal species

approach, a habitat-based, multi-species approach to land-bird conservation in which the ecological requirements of a suite of focal species are used to define an “ideal landscape” to maintain the range of habitat conditions and ecological processes required by landbirds and many other taxa.

PIF is currently in the implementation phase of its program. Quantitative habitat conservation objectives for grassland and riparian ecosystems are being finalized using the focal species approach. This fall, high priority grassland habitats for conservation (acquisition, protection, restoration and stewardship) will be finalized through our partnerships. PIF’s aim is to provide support to partners who engage in stewardship to ensure that landowners are equipped with the knowledge and resources to maintain key habitat elements for landbirds across working landscapes.

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Lemonweed (*Lithospermum ruderale*) is just one of the many grassland plants that has an enormous cultural history. First Nations in grassland regions across the province used its flowers and leaves for a variety of purposes including ceremonial incense or dye; as a charm to make it rain; and as part of a ritual to stop thunderstorms. Its roots were often ground up for flour and its leaves were made into a tea to mitigate internal bleeding.

PHOTO BRUNO DELESALLE

Splendour in the Grass

Don Gayton, Ecologist, Forest Research Extension Partnership

I showed up one morning at the ranch house in Saskatchewan, hoping to meet Peter Butala, this grass man I had heard so much about. Luckily for me, he had just finished morning chores and was inside having coffee. I babbled an incoherent introduction, about how I was equally interested in Peter the rancher and his wife Sharon, the writer. Peter laughed and put me right at ease.

“Sharon’s away right now, and I was just about to go have a look at our native grass range,” he said. “Do you want to come along?”

I jumped at the chance. What followed was a lengthy and almost magical tour of a good portion of southwestern Saskatchewan, looking at quarter after quarter of conservatively grazed native rangeland. The land had been in family hands since the early part of the last century, and Butala family culture strongly emphasized respect for the land. Peter carried that tradition forward; he saw grass as the ranch’s primary product, and his cattle operation benefited greatly from that philosophy. This was tough country we were in: rolling terrain, solonchic soils, parching summers and brutal winters. But the northern wheatgrass, western wheatgrass, blue grama and junegrass on the Butala range were all in excellent condition. Droughts are a common occurrence in this part of the world, so Peter always kept lots of grass in reserve, preferring to manage from abundance rather than from scarcity. He was well aware of the proven fact that when native grasses are grazed conservatively, they produce far more forage than when overgrazed.

I saw Peter several more times after that first visit. He was a quiet man, I think because he maintained such an active and intimate conversation with his land. There was a luminous quality about him, which I believe also came from his passionate attachment to his grasslands.

I mourn Peter’s recent passing, but I take heart in his life’s vocation of crafting a sustainable grassland culture. If the Butalas could build it as individuals, and as a family, then perhaps we can build it as a society.

I don’t think it is unreasonable to talk about the need for a grassland culture in BC. Culture, in Robert McKnight’s definition, is the set of learnings that allows people to operate successfully in a particular place. The human species has operated in grasslands since they came down out of the trees, and over the millennia, we have accumulated quite a body of grassland culture. Contributions to that culture have come from the South African veldt, the Mexican llanos, the Mediterranean drylands, the Russian and Mongolian steppes, the Argentine pampas, and of course the grasslands and dry forests of Western North America. This ancient vessel of grassland cultural knowledge still sails today, on the complex sea of grazing,

fire, drought, botany and solitude. It is no understatement to say that grassland culture has made us who we are.

Most of our current concerns in BC revolve around the science, the economics and the politics of grasslands, but let’s take a minute to think about the culture of grasslands. Why do we want to conserve this ecosystem? What exactly does it mean to us? We can perhaps calculate a monetary loss if our grasslands disappear, but what would the cultural and spiritual losses be, to individuals and to our society, if our native grasslands were no more?

A good starting point for getting a handle on the culture of grasslands is to back up about 2,500 years, to the rocky hills and shrublands of Greece and Italy. There, writers like Virgil and Theocritus idealized the life of the herder, who tended sheep and goats in those dry pastures. In the hands of these and other writers of classical Greece, the grasslands became places of personal freedom, places of liberation from the constraints of the city, places of contemplation, places for sustained and sustainable contact with nature, and places in which to exercise creativity and the arts.

The tradition that Virgil and Theocritus started continued on through later English pastoral poetry and lifeways, was eventually exported to the New World, and survives right down to today, in the form of Western and cowboy culture. If we wish to develop a sustainable BC grassland culture, we have good raw materials to build on. There’s a rich ranching history to explore, stretching all the way back to the 1860s. We have a good scientific tradition, founded by Tisdale, Mclean and Pitt, and carried forward by the current generation of range scientists. We have individual examples of good ranch stewardship throughout the province. We have good cowboy poets and grassland artists. Our nascent grassland culture can not only consist of the learnings that allowed us to successfully live in this place, it can also celebrate those grassland tools and animals and sensibilities, and turn them into art.

It is no secret that our southern interior grasslands are in trouble, threatened on all sides by a multitude of powerful forces. While we must continue making the economic and ecological case for sustained and sustainable grasslands, the cultural case may just be our trump card. Ecology appeals to the brain and economics to the wallet, but culture goes straight to the heart. We need to resurrect our dormant BC grassland culture—using all forms of art—to show the rest of the world our splendour in the grass. 🐾

*Don Gayton is an ecologist with FORREX. His latest book, *Interwoven Wild*, was recently published by Thistledown Press.*

Grazing and Grasslands

Jim White, Rangeland Associates, Director, Grasslands Conservation Council of BC



ABOVE The use of proper grazing techniques can keep grasslands in a healthy vibrant state.

Sometimes we get the impression that live-stock grazing is “bad” for grasslands. Conversely, sometimes it is suggested that grazing is “good” for grasslands. The truth lies between those two positions.

Over the past 75 years, much has been learned about the impact of grazing on grasslands. We now know, for instance, that grazing of grassland plants can be beneficial if it increases vigour, helps to establish new desirable plants, or if it has a negative impact on undesirable plants. A varied habitat, as provided by prescribed grazing, is beneficial to some wildlife species. A basic principle is that all grassland plants have some tolerance for defoliation. The degree, timing, and repetition of defoliation are the critical variables.

There are three primary reasons why grasslands deteriorate due to grazing: if grasslands are grazed for long periods; if there are very heavy levels of grazing utilization; and/or heavy grazing is repeated throughout the active growing season year after year. In some cases all three factors are present at the same time.

There are five basic steps that can keep grasslands healthy or return unhealthy grasslands to a better state. These include: (a) keeping the period of grazing short in a given pasture, preferably to a few weeks; (b) rotating the period of use that a given pasture receives each year, so that it is grazed during the growing season no more often than once every two, preferably three, years; (c) providing for periodic complete rest of a pasture (preferably every three years); and (d) restricting grazing utilization to less than half of the current year’s growth; and (e) distributing grazing reasonably uniformly across a pasture (often by salting).

Applying these five basic steps has resulted in major improvements in rangeland health in many areas, and in a manner that has been practical and beneficial for ranchers.

Jim White is a professional agrologist specializing in practical rangeland inventory and management planning based on grazing animal behaviour.

GRAZING TIPS

Short periods: Short periods of grazing are indicated because each time a plant is heavily grazed it experiences a degree of shock, which results in cessation of root growth and a loss of growing time while moisture is available. The ideal length of a grazing period would be that which eliminates grazing of regrowth (seven to 14 days). A month of grazing, however, has much less impact than three to five months, even if the latter is at a conservative stocking rate.

Rotation and rest: “Whatever you did last year, don’t do it this year” is a rather simple, but very valid, guideline. Rotating the seasons (spring, summer, fall) of grazing that a given pasture is grazed over several years is a key to improving rangeland health, as is allowing the pasture to periodically have a year of undisturbed growth.

Level of grazing utilization: Plants need leaf area in the sun to produce their food (photosynthesis). A severe level of grazing directly interferes with this process. The most desirable species of tall, bunch-forming grasses are more vulnerable than lower growing species like the bluegrasses, being more upright and available to a grazing animal. It has long been held that a basic rule of good grassland management is take half and leave half. It is recognized today that this rule is at the upper edge of acceptable utilization on harsher sites, where removal of one-third of the current year’s growth is recommended. Somewhat heavier utilization during dormancy may be acceptable.

Creative use of salt: Animals are attracted to good feed, water, resting areas—all with security from predators. They are also attracted to salt. Salt is the only attractant that we can conveniently move. Therefore salt should be available in each pasture, and should be located where it will draw stock away from other attractants, especially water.

Conclusion: Finally, managing the grazing impact of cattle or horse, while complicated, is much easier than modifying the grazing pattern of wildlife—but both are achievable.

Environmental Farm Plan

Theory In Action

Kingsley Campbell, P.Ag., Head of BC Agriculture Programs, Ducks Unlimited Canada



ABOVE Cindy Swan and her cows have benefited from the Environmental Farm Plan.

Cindy Swan always knew ranching was hard work. So when she and her husband Ben bought their nearly 800-hectare ranch in BC's central interior back in 1991, they didn't plan to add to their burden with a lot of improvements. Turns out there was a hitch.

"I noticed the run-off in the creeks was brown, and I thought, 'uh-oh,'" said Swan.

It was not just that their operation was so close to a wetland that spring run-off created a risk of water contamination for their herd. Swan's cow herd was also so crammed into a small area that their risk of disease was increased. To avoid this meant relocating all the cattle, the sheds and the pens as far as one-fifth of a kilometre away, which was hard work. But the payoff, said Swan, has been huge.

"At one time about three-quarters of my herd needed medicine for one illness or another," she said. "Knock on wood—this year not one has been sick."

Swan gives full marks to Ducks Unlimited Canada (DUC) and something called the Environmental Farm Plan (EFP) program for helping them to substantially improve their ranch and to protect the natural habitat that surrounds it.

"We could not have done it on our own," said Swan.

EFPs are designed so that agricultural operations improve the habitat where possible while having a minimal impact on natural resources such as water, fish and wildlife. Solutions can include: better fencing; improved livestock watering systems and irrigation

methods; manure storage and handling; run-off controls; buffers to protect streamside habitat from grazing livestock; and other measures if needed.

Two years ago, DUC signed an agreement with the BC Agriculture Council (BCAC) to help improve habitat on farms by providing technical advice with EFPs and additional financial support for producers adopting Best Management Practices (BMPs) that benefit waterfowl habitat. By the fall of 2006, 120 producers on over 3,500 hectares throughout the province had entered into agreements with DUC.

The agreement with BCAC meant that DUC would fund up to \$250,000 toward BMPs in the province. In addition to the funds from BCAC and the federal government, eligible producers can get as much as \$6,666 of DUC top-up funding by following certain guidelines and signing a 10-year conservation agreement with DUC to ensure the practices are maintained.

Clarke Gourley, owner of Little Qualicum Cheeseworks Dairy on Vancouver Island, said when he bought his 168-hectare farm he wanted to be able to let cattle stay out on the field. The EFP helped him to do that without harming the creek that runs through his place by installing new fencing and changing his watering system.

Gourley said that the financial funding farmers receive through the EFPs is one reason for signing up, but an equally compelling reason are the criminal charges one could face for accidentally contaminating a creek.

"At one time about three-quarters of my herd needed medicine for one illness or another. Knock on wood—this year not one has been sick."

"It's not just the appeal of the funding offered through the program," said King Campbell, EFP advisor and DUC agrologist. "It is also the ease and efficiency of having a plan in place that reduces so much worry and stress for the producer."

"As ranchers we have a tendency to be cautious about anything related to government just because we are always facing so many new regulations," said Swan. "But King was excellent and he really understood the concerns we have and our issues, so it was so much easier to go through the process." 

King Campbell has promoted land stewardship activities with British Columbia ranchers and farmers for the last six years through his work with Ducks Unlimited Canada.

STEWARDSHIP IN THE FACE OF INVASION

Jo-Ann Fox, Coordinator, Southern Interior Weed Management Committee

Land owners and managers are often faced with the task of controlling unwanted pests. During June and July, many of the “wild flowers” that spring up along roadsides and pastures are in fact weeds that have the potential to spread quickly, displace native plants, and reduce grazing for wildlife and livestock. Managing these invasive weeds is challenging and using one single management practice will probably not guarantee their effective control. Often, a combination of weed management strategies must be implemented including: preventative, chemical, mechanical, cultural, or biological methods. The combination of strategies a landowner should use depends on a variety of factors; the benefits of the treatment chosen should outweigh the costs, be least damaging to non-target species, and be effective over the long term. The following briefly outlines best management considerations for weed control that should be considered in stewardship practices.

Identify the weed: Be mindful of the plants around you and take note of new plants, especially if they are spreading quickly. Get a copy of *Field Guide to Noxious Weeds and Other Selected Invasive Plants of British Columbia* by contacting the invasive plant coordinator for your region. Learn about the biology of the weed by visiting www.weedsbc.ca

Identify the problem: Many weeds are the *result* of a problem and not the cause. Ground disturbance and overgrazing are just two reasons weeds may invade. Be mindful of activities occurring on the land and how they are affecting the plant population. Weed infestations are easier and less costly to control if caught in the first stages.

Treat the problem: Treatment will depend on the type of weed and the location of the infestation. There are five forms of weed control:

Prevention: This is the easiest and cheapest form of weed control. Ensure you are aware of the plants present and be reactive if land activities are impacting the native plant community. Prevention includes: reseeding soil disturbances; cleaning equipment of weed seed sources; cleaning livestock before moving from weed infested sites; and reacting to single, isolated weeds immediately.

Physical: Physical weed control methods include tillage, hand pulling, mowing, grazing, burning and mulching. Some plants will increase with physical control so check the plant biology before you begin a major physical treatment.

Cultural: This uses plant competition or cropping practices to suppress weeds. It can also include crop rotations and establishments.



ABOVE Showy Thistle is just one of the many invasive plants that are threatening to overrun the grasslands of BC.

Biological: This refers to using the plant’s natural agents such as insects to control the weeds. Weed committees across the province coordinate the biological control program for their area. Agents are available for Spotted and Diffuse Knapweed, Dalmatian Toadflax, Hound’s Tongue, Leafy Spurge and some thistles.

Chemical: Herbicides are an important tool for weed control, and when used in combination with the other control methods rather than alone can save money and minimize potential environmental impacts. Weeds know no boundaries and can spread from private to crown land so it is important that all land users and managers work together on the prevention of weed spread.

For more information please contact the Southern Interior Weed Management Committee at (250) 851-1699 or visit www.siwmc.ca

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On a practical level, grassland stewardship is a set of strategies and practices that landowners, land managers, and land use planners can implement to ensure the long-term health and integrity of grassland landscapes. However, our collective experience over the past 20 years has shown that our ability to implement strategies and practices at a scale that will yield effective results—that is, strategies that will ensure our natural grassland ecosystems are maintained and enhanced for future generations—is fraught with difficulties. The reality is that stewardship, as practiced at the present time, does not effectively protect grasslands from fragmentation, development or conversion on a large enough scale to prevent the rapid rate of loss we currently face. Economic pressures and population growth, combined with unfavorable demographics—an aging ranching population with few young people choosing to pursue ranching as a career and lifestyle—are resulting in conversion of historic ranchlands to more lucrative uses.

The bottom line is that BC's stewardship programs are seriously hindered by the lack of clear economic incentives for ranchers and landowners to preserve their land as native grassland and as working landscapes for forage-based agriculture. The lack of economic incentives flies in the face of the yet unrealized fact that good grassland stewardship has many proven economic benefits including preserving a myriad of associated ecological goods and services and playing a vital role in carbon sequestration and storage. The fact remains that stewardship will only stem the tide of development and reap said ecological and economic benefits when society is able to provide suitable monetary incentives and other tools to encourage landowners not to sell or convert their grasslands to alternate land uses.

Upon reviewing results and recommendations from numerous conferences focused on stewardship, including the *Revisiting the Land Ethic: Caring for the Land in 1994* and the more recent *Valuing Nature—Stewardship and Conservation in Canada* conference held in Newfoundland in 2006, there are several recommendations I feel are necessary to bring forward as they are relevant to this discussion regarding effective grassland stewardship and the barriers that must be overcome.

The first is for collaborative and effective

incentive programs for landowners which would include ecological goods and services programs for agricultural lands. This recommendation hinges on the recognition of the fact that we must foster innovative ways to make conservation financially attractive to landowners and to ranchers. One of the tools is the national ecological gift program and a new emerging agricultural gift program (conceptual at this time). Tax-based incentives, however, do not necessarily assist a rancher during tough economic times where cash flow is the main issue and the only reprieve is to sell land for economic survival. As a result, innovative incentives that put cash in the rancher's pocket for preservation of native grasslands as agricultural land (along with the associated ecological goods and services they provide to society) are likely the only viable tools at this time.

Further to the above, there is a growing need to demonstrate the economic values of natural capital (grasslands) and the associated services. These economic values must be marketed to landowners and communities. This must include the role that grasslands play in carbon sequestration and as carbon sinks. The only way a stewardship incentive program can be effective is if it can convey an understanding of these values to everyone involved in land use planning and management, and devise a method to quantify and integrate these values into the decision-making process.

The final recommendation that I will highlight (there are numerous recommendations that are all relevant) is that senior governments will need to invest in building the capacity of regional and municipal governments to achieve informed and effective long-term planning and decision-making that will yield consistent results towards conservation goals and targets. In addition to capacity, municipalities and planners need to be able to integrate full cost accounting of natural capital and ecological goods and services when land is converted from native grassland or agricultural land to an alternate land use.

While this issue of *BC Grasslands* magazine begins to address the complexities of stewardship, the next issue will further explore the barriers and opportunities for stewardship, focusing on the *Economy of Grass—Beyond the Dollar Values*. The issue will address the economics of sustainability,

the value of ecological goods and services, and the movement towards practical solutions that will make stewardship a viable land use option, as there is no doubt that stewardship will play an increasingly pivotal role in enabling non-government organizations, industry and government to conserve and maintain the diversity of grasslands in BC.

Partners in Flight

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For our focal landbird population goals, we address the questions, "How much habitat is enough, what should it look like, and where is it?"

To further integrate continental, national and regional landbird priorities with partner programs, PIF is also helping to fill data gaps; to provide training and support to partner programs; to assist partners with funding proposals for high priority restoration projects and stewardship initiatives within the ranching and agricultural community; and to re-establish links with American and Mexican PIF partners.

PIF is also evaluating conservation tools. In collaboration with Thompson Rivers University (TRU), and with help from other partners like the Ministry of Environment and SFU, PIF and CWS are conducting an evaluation of wildlife tree signs and their associated outreach components. This long-term project will determine the most effective methods for protecting wildlife across the working landscape. 

Tanya Luszc has worked as a Partners in Flight Program Manager since 2005. She has a MSc. in Ecology from the University of Calgary where she studied habitat use of forest-dwelling bats.

