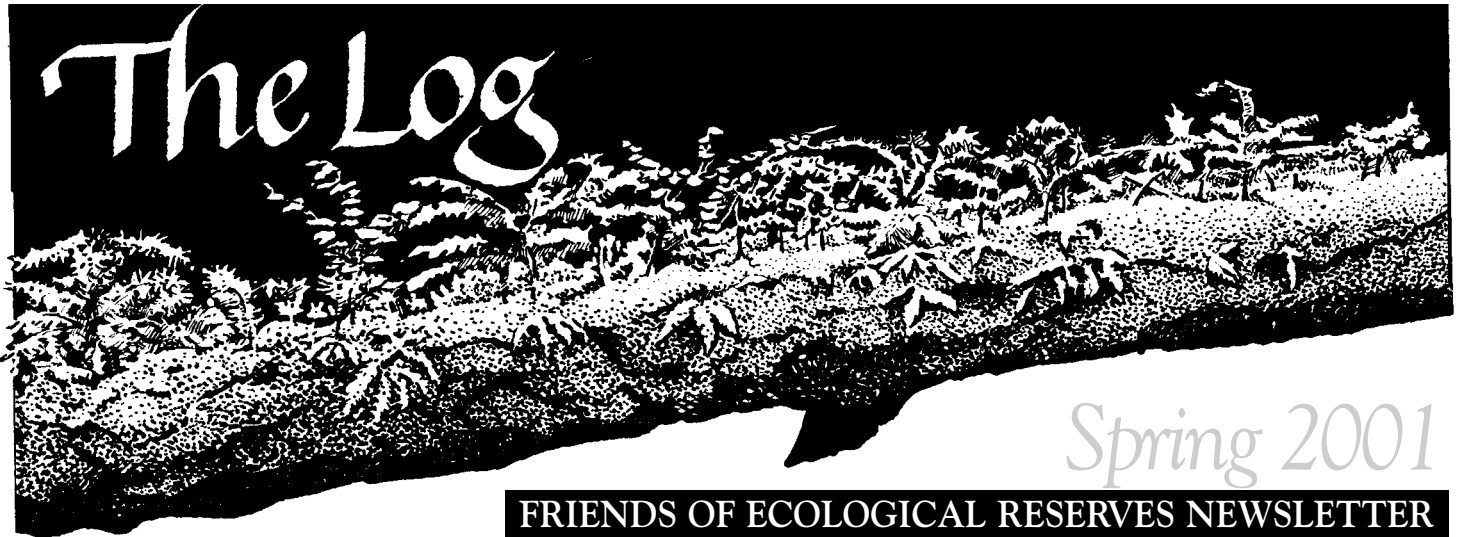


The Log



Spring 2001

FRIENDS OF ECOLOGICAL RESERVES NEWSLETTER

Twenty Five Years and Still Loving It!

Gail Ross began her first job at BC Parks more than 25 years ago. She was hired as a cross-country ski patrol/car parking attendant on December 1, 1975—the day Cypress Bowl opened for the skiing public.

As a Parks employee, Gail has worked as a snowshoe interpreter on Mt Seymour, a summer interpreter at Golden Ears, head naturalist and visitor services officer at Manning Park, district resource officer and, most recently, acting manager of extension programs at head office in Victoria. President Lynne Milnes and Vice-President Peggy Frank have had several meetings with Gail since she arrived in Victoria a few months ago. They are impressed by Gail's enthusiasm and her desire to work with the Friends of Ecological Reserves (FER) and, in co-operation, to ensure that Ecological Reserves are looked after. Recently, Peggy Frank interviewed Gail.

"It's wonderful work", says Gail as she talks about the past, and her involvement as former warden of ERs 21 (Skagit River Forest), 22 (Ross Lake), 27 (Whipsaw Creek), 89 (Skagit River Cottonwoods) and

106 (Skagit River Rhododendrons). The Skagit Vally, the Whipsaw and rhododendron-laden reserves were areas where she could go and see some of the natural history that was important to her and to her early career duties. I think I heard Gail sigh as she talked about the camaraderie and endless learning opportunities at annual interpreters' training sessions organized by David Stirling and Kerry Joy.

Gail was a park naturalist who instinctively moved towards management and organizing visitor programs. She is also a person who grasps problems clearly and moves toward reasonable resolutions. When her job took her to Prince George in 1987 her management skills were further developed and honed. She became involved in land resource management tables and chaired the regional protected area team meetings that involved interested and affected public in the planning processes. In the Northeast, these processes have led to the creation of more than 120 new protected areas.

After many years in the districts and regions, Gail asked herself if she could make a difference to those programs she had supported throughout her career if she took a temporary placement as acting manager of extension services and moved to Victoria in late September 2000.

Ecological reserves are only part of "extension services", but Gail has

opened the doors to discourse and is helping FER to be heard. Gail is working within the Ministry and with FER to try to rekindle a provincial warden meeting. She isn't a government employee who answers a request with "No, we don't have the money". She challenges us to help make those things blocking our requests become fewer and less obstructive.

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The Log

Spring 2001

The Log is published 2-3 times a year by the Friends of Ecological Reserves to promote the establishment, management and maintenance of Ecological Reserves in British Columbia. The Log is distributed to members, volunteer wardens, affiliates, supporters, government, friends and the enquiring public.

The views expressed in this newsletter are not necessarily those of the Friends. Articles for publication are invited. The deadline for submissions for the next issue of The Log is August 1, 2001

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Thanks to all!

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PRESIDENT'S MESSAGE

Spring Renewal

Spring is a time of renewal, which is a fitting theme for the new relationship being forged between Parks and Ecological Reserves. With the help of former warden, Gail Ross (see interview), Ecological Reserves are slowly emerging from the bureaucratic morass of regionalisation to an acceptance as something different but necessary within the Parks Branch of the Ministry of Environment, Lands and Parks.

To this end the Friends are consistently trying to strengthen the support for volunteer wardens who are the eyes and ears for Ecological Reserves throughout the province. Last issue we heard that the name "warden" was to be changed. We asked for your input and we got it. "We need signs and fences not new names," you chanted over and over again. It was great to read your letters and renew old acquaintances. The Parks Branch also heard your consistent requests and responded by reinstating the name "volunteer wardens" for those who oversee Ecological Reserves.

The Friends are also determined to reinstate the annual warden meeting where volunteers come from all over the province to meet and exchange ideas, problems and solutions. Annual meetings were once a very successful feature of the warden program until they became a regional concern. If you live on southern Vancouver Island there is an annual meeting while in the north there may not be one. We hope to bring all the wardens together from all parts of the province soon for an annual get-together and problem-solving session.

In an effort to bring awareness to these often-neglected northern wardens the theme for this issue of *The Log* is the Prince George District, an enormous region stretching from Quesnel in the south, west to Takla Lake, east to McBride and north to Williston Lake and Chetwynd. The region encompasses 15 Ecological Reserves with 6 active wardens. Let us celebrate spring by focusing on the north and the volunteer wardens who travel enormous distances to protect Ecological Reserves there.

Let us also celebrate spring by renewing your Friends membership if you have not done so. To new growth on all frontiers.

Lynne Milnes, President

Friends of Ecological Reserves welcomes new Manager

The Board of Directors of FER welcomes **Daphne Munroe** as new Manager for the society. Daphne has an honours degree in environmental science from Simon Fraser University and is currently the Vancouver Island Warden for The Land Conservancy of BC (TLC). Daphne became aware of FER through her association with former manager Nichola Walkden and she believes that the work supported by FER is important to the future of natural reserves and to biodiversity in British Columbia. Daphne's future plans include a Master degree in Biology at University of Victoria where she will continue her research into ecosystem effects of the shellfish aquaculture industry on the BC coast. Her interests

include sports, hiking, biking, camping, and reading.

...and new Board members!

At the recent Annual General Meeting, 3 new board members joined the Board of Directors. **Nichola Walkden**, former manager for FER and coordinator of the Grasslands Project, has joined the Board and has taken on the task of Treasurer for this year.

As well, warden of the Oak Bay Islets (#94) since 1986, **Marilyn Lambert** brings the voice of wardens to the board for the first time in many years. **Sue Carr**, who has previously served on the board returns for a new term of office.

Welcome Daphne, Nichola, Marilyn and Sue!

Working Holidays

The Land Conservancy of BC (TLC) has several working holiday options available for all types of nature enthusiasts. Spend some time on South Winchelsea Island helping with beach clean-up there and at neighboring islands or go to the spectacular South Chilcotin to help at Reynold's Ranch. Working holidays include all meals, accommodation, and local transportation. Prices range from \$30–\$70. Call 250 479 8053 for an information package, dates of the holidays and other volunteer opportunities.

South Winchelsea Island Cabin Rental

Enjoy a private island getaway when staying at the Land Conservancy of BC's (TLC's) rental cabin on South Winchelsea Island, near Nanaimo. The island was purchased by TLC in 1998 and is now being managed as an excellent example of the rare Garry Oak ecosystem. To help maintain the island and make mortgage payments, TLC is renting the cabin. You are welcome to bring up to 6 people and there is wood stove heating, solar powered lights, pressurized hot water, and a full kitchen. Transportation is included. Please visit our website at www.conservancy.bc.ca for further details and current rates or phone Daphne Munroe at 250 479 8053. ■



Winchelsea woodworkers!

PHOTO: THE LAND CONSERVANCY OF BC

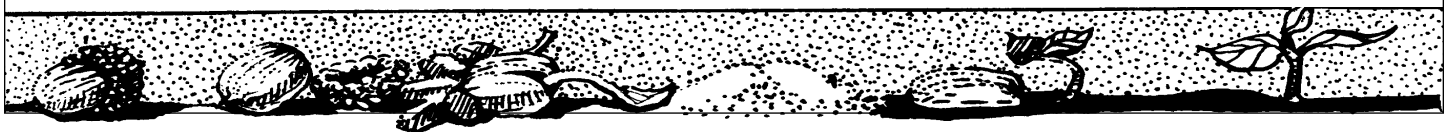


The cabin at South Winchelsea Island.

PHOTO: THE LAND CONSERVANCY OF BC

In the next issue:

Look for an exciting account of an adventure to the Spatsizi Ecological Reserve (ER 68) at Gladys Lake in the Cassiar, with the assistance of Ross Pojar, its warden, and Evelyn Hamilton, our treasurer. FER's artists will use this trip to prepare the illustrations for the fourth in our series of placemats—the mountain plants of BC! ■



Report on the Annual General Meeting

The Annual General Meeting of the Friends of Ecological Reserves was on February 23, 2001, at the University of Victoria. President **Lynne Milnes** welcomed members and guests and reported briefly on the highlights of 2000:

"The year 2000 has been a busy year for the Friends. We have made a concerted effort to reach out to wardens throughout the province and they are writing back! **Gail Ross**, a former warden and now Assistant Manager of Extension Services in the Parks Branch, Ministry of Environment, Lands and Parks, has been very helpful in bridging the gap between the Friends and Parks. She asked me for a wish list and I supplied requests for fencing, funding, signage and transportation assistance on behalf of the wardens of the many Ecological Reserves throughout the province.

"We managed to produce 3 newsletters which appeared as a minor miracle each time it happened. Thanks to **Tom Mace**—our sometime editor, **Cheryl Borris**, manager **Nichola Walken**, **Denise**—our design person, volunteer **Tom Gillespie**—our address supplier—and all the wardens who contributed to *The Log*.

"On the funding end we continued our support of **Dr. Jane Watson's** sea otter research, **Dr. Tom Reimchen's** fish-forestry interaction on the coast and **Pam Janszen's** mushroom studies on Saturna Island (ER #15). This year we assisted Pearson College's superb website with a contribution towards their purchase of an underwater camera for the **Race Rocks** Ecological Reserve. We also provided a small grant to **Kimberlee Chambers** who is commencing her Masters degree studies on Balsam Root in the interior of the province.

"Kimberly works under the direction of **Dr. Nancy Turner**. Dr. Turner was

on the Environmental Studies panel that chose this year's recipient of the Friends of Ecological Reserves **Vicky Husband Scholarship**, given annually to a student who volunteers in the environmental community. The winner for 2000 was **Elizabeth Ferguson** who, in addition to her studies, volunteered at the Sierra Club of BC preparing educational materials on climate change and working in a daycare centre in Cuba. Elizabeth is off to Oxford next year on a Rotary scholarship and we congratulate her.

"We had one field trip to Trial Island Ecological Reserve under the leadership of **Adolf Ceska**. We were part of the Pitch-In Canada annual shoreline clean up and, with the help of warden **Marilyn Lambert**, we picked up debris on the beaches of Alpha and Griffin Island (Oak Bay Islets Ecological Reserve). We sat at the table for the Marine Protected Area Strategy, resulting in Race Rocks being BC's first marine protected area and participated in the University of Victoria Native Plant Conference for the 6th consecutive year.

Our main fundraiser this year was the raffle of the meadowlark painting by **Fenwick Lansdowne** and the limited edition prints, which we carried over from last year. This project raised over \$4000. **Nichola Walkden**, who handled this complicated event and all things organizational within the Friends, deserves a great round of applause for all her work—including our funding application to the **Eden Conservation Trust** which increased their annual grant to us by \$5000, for a total of \$15,000, in acknowledgment of our work with wardens. **Nichola** has resigned as manager of FER, due to the demands of her full-time job as Deputy Executive Director of the Land Conservancy of BC and so a huge vote of thanks for the work she has done for

the past 5 years goes out to her. As well, I would like to thank her and our new manager, **Daphne Munroe**, for putting this AGM together. In conclusion, I would like to thank the out-going Board of Directors for their contributions and dedication to the society. Onward to 2001!"

Lynne then made a presentation to past-president **Cheryl Borris**, who did not stand for re-election. Lynne thanked Cheryl for her dedication and hard work during the past several years and announced that Cheryl will continue as editor of *The Log* for 2001. Lynne also announced that Cheryl will be developing a website for FER during the coming months.

Treasurer **Evelyn Hamilton** reported on the society's finances, saying that the total operations expense for 2000 was \$41,489, of which \$4,955 was allocated to the completion of the Grasslands Project. Fundraising revenues from lecture admissions, field trip fees, placemat sales and raffle tickets increased from \$4,100 in 1999 to \$5,200.

The Nominating Committee presented the election slate for the 2001 Board of Directors. Nine directors stood for re-election. Three additional candidates—**Sue Carr**, **Marilyn Lambert** and **Nichola Walkden**—were nominated. All were elected by acclamation. ■

"Twenty Five Years..." continued from page 1

When I asked Gail about the future, she couldn't give me a crystal-ball image. She did say that she would be taking some time off in May to explore Peru and that government, like the private sector, is full of uncertainties. She would only say that she would remain committed to Ecological Reserves and working with FER, wherever she was. ■

Peggy Frank

The Slow Disappearance of Ecological Reserve #39 Sunbeam Creek

BC's Ecological Reserves can be placed in two categories—those which protect some unique or special feature, and those which represent a typical sample of an ecological zone or type. Sunbeam Creek ER (ER #39) near McBride is one of the latter. It was established in 1972 on the high, s-shaped ridge of McBride Peak as a representative sample of alpine tundra at the western edge of the Rockies. From the area, Sunbeam Creek tumbles down to the Fraser River, leaving a strange white precipitate behind. The reserve looked pristine when I became its volunteer warden in 1988. Problems were on the horizon, however.

McBride Peak was chosen for its variety of slopes and its good mix of wet and dry areas. But those who chose it may not have realized the degree to which recreation had become a local tradition on the peak. Just below the reserve boundary sits a forest fire lookout building, now abandoned. A trail and then a road had been built into the alpine to access the lookout. With road access, the McBride Peak alpine became accessible to people of all ages. Local school and church groups and individuals experienced it each summer. Prince George hang gliding enthusiasts established a launch area halfway up the road.

One of the mandates of BC's Ministry of Forests is to provide for recreational activities on forest land, which currently means on any vacant crown land such as that surrounding Sunbeam Creek ER. In the early 1990s the MOF resumed occasional maintenance of the McBride Peak road and put in a small parking lot near the treeline. The familiar

standardized hiking symbol appeared on signs along Highway 16, directing recreation seekers up McBride Peak. Since wheel ruts had scarred the high subalpine, the Ministry of Forests built an earth berm to stop vehicles at the new parking lot.

Occasional discussions have taken place between MOF and Parks. MOF staff suggested a possible new reserve near Mount Blackman about 100 km south. The consensus appears to be that McBride Peak should be a recreation area. To my knowledge, nothing has yet been decided.

Mountains overlooking towns are sought after as radio sites. As Sunbeam's status descends into limbo, radio towers have begun to appear inside the boundaries. At last count, there were three.

Monument-building has also included a great stone Inukshuk figure. The following summer it was gone, but in another big pile of rocks a bear had found a soggy Bible and ate half of it, scattering the rest.

Advances in snowmobile technology have put very steep country within reach of the machines. Riders now pour into McBride and Valemout by the thousands in response to various groups' promotion of our alpine riding. Since 1999-2000, Sunbeam Creek ER has been a popular area for snowmobiling. Hardly any ground of less than sixty degrees slope is left untracked by winter's end.

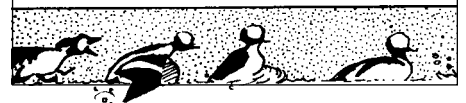
So what does a volunteer warden, unsupported by a club or group in this case, do when faced with such an ambiguous situation? Well, let's see. Mostly I send in my report each year, and poke a few rocks together to straighten up the one remaining boundary signpost. I smile at the folks

enjoying the alpine and suggest that they have a nice day. I've visited the Mount Blackman alpine area proposed as an alternate site—it's glorious. Wet, dry, north, south, east, west, steep, gentle... plenty of variety. It has some things Sunbeam lacks, such as tarns and lakes. One lake appears to get emptied sometimes by a massive wave from glacial collapse. There is no road or trail access. I'm all for the move. I'm thinking it's about time for me to get off my butt and do what I can to push the idea a bit—before commercial recreation interests set their sights on Mount Blackman and things get complicated there too. ■

*Art Carson, Volunteer Warden
Valemout*

RESERVES WITHOUT WARDENS

Sadly, not every ecological reserve in British Columbia has a warden to care for it. Of the 15 ERs in the Prince George District, five are in need of wardens. If you are interested in becoming a volunteer warden for an ecological reserve, or want to know more about the ecological reserve program, call Mark Fercho at 250 565 6346 (ERs 71, 85, 87) or Rob MacDonald at 250 565 4365 (ERs 60, 134).



The Ecological Reserves of the Prince George District

ER 71—Blackwater Creek

- west of Williston Lake and north west of Mackenzie
- Sub-boreal forest types (lodgepole pine) and an adjacent portion of extensive low moor plant communities.
- 234 ha
- No Warden

ER 38—Takla Lake

- west shore, south of Takla Landing
- Most northerly known occurrence of Douglas-fir. Genetically this population of Douglas-fir is one of the most frost resistant.
- 263 ha
- Warden: Trent & Luisa Reiersen

ER 86—Bednesti Lake

- west of Prince George and near Bednesti Lake
- Two small kettle lakes gradually being filled in by a floating sedge mat that contains an unusual subarctic species. Tamarack and dwarf birch fens and black spruce bogs surround the lakes. Wetlands are enclosed by a buffer of upland spruce, lodgepole pine forest.
- 139.2 ha
- Warden: Nancy Muirhead

ER 84—Aleza Lake

- east of Prince George, in the vicinity of Aleza Lake
- Representative sub-boreal spruce forest close to the interior western hemlock biogeoclimatic zone; 2 small lakes and associated wetland ecosystems.
- 242.4 ha
- Warden: Laird Law

ER 41—Tacheeda Lakes

- on the McGregor Plateau, north east of Prince George
- Diversity of ecosystems belonging to upper elevations (less productive) of the sub-boreal spruce zone and its transition toward the interior subalpine zone. Douglas-fir occurs here, close to its northern limits in these longitudes. Representative forest communities on the McGregor Plateau.
- 526 ha
- Warden: Sandra Kinsey

ER 72—Nechako River

- south of Isle Pierre in the Nechako Basin
- The only better growth and southernmost occurrence of tamarack west of the Canadian Rockies, favoured by environmental conditions (circumneutral bog).
- 132.7 ha
- Warden: Laird Law

ER 36—Mackinnon Esker

- north west of Carp Lake, east of Salmon Lake
- Long compound esker and its major ecosystems of the sub-boreal spruce. Well-developed lichen communities and marginal occurrence of the interior subalpine zone.
- 600 ha
- Warden: Laird Law

ER 82—Cinema Bog

- north northeast of Quesnel, east of Hwy 97
- Lowland black spruce sphagnum bog; outstanding diversity of sedge

and other bog species and their representative plant associations, forming a complete successional spectrum from low moor to high moor.

- 70 ha
- Warden: Nancy Muirhead

ER 134—Ellis Island

- in Fraser Lake, west of Vanderhoof
- Inland breeding colony of herring and ring-billed gulls (one of only two such colonies of the latter, in the province). This colony is vulnerable to disturbance by people landing on the island.
- 1 ha
- No Warden

ER 60—Drywilliam Lake

- south of Fraser Lake
- Excellent old growth stand of savannah-like Douglas-fir forest in a transition between the Cariboo aspen-lodgepole pine biogeoclimatic zone and the sub-boreal spruce zone.
- 95 ha
- No Warden

ER 39—Sunbeam Creek

- north east of McBride, east of the Fraser River
- Representative parkland-like subzone of the interior subalpine zone; marginal development of the interior alpine zone in areas where the duration of snow drift is long. Beautiful alpine meadows.
- 510.7 ha
- Warden: Art Carson

ER 85—Patsuk Creek

- north west of Mackenzie
- At lower elevations, excellent example of paper birch dominated forest with birch in nearly pure stands or mixed with aspen and spruce. At higher elevations, typical interior subalpine fir forest.
- 554.3 ha
- No Warden

ER 87—Heather Lake

- north east of Mackenzie, east of Williston Lake
- A forest of trembling aspen that exhibits excellent growth on a

productive site, as well as a small narrow lake rimmed with mature spruce and subalpine fir.

- 235 ha
- No Warden

ER 79—Chilako River

- south of Vanderhoof and south west of Prince George
- Noted for tamarack and its associated swamp, fen, bog ecosystem mosaic at the southern limit of its range in BC.
- 64.36 ha
- Warden: Ivan Cartwright

ER 78—Meridian Road (45 Mile Post)

- South of Vanderhoof
- Contains the whole spectrum of ecosystem units characteristic of the Engelmann spruce-subalpine fir-lodgepole pine forest, especially the white-flowered rhododendron plant association.
- 262.2 ha
- Warden: Ivan Cartwright ■

GRAPHIC NOT AVAILABLE

New Ecological Reserves Established North of Prince George

Recently, several new Ecological Reserves were established as a result of strategic Land and Resource Management Plans (LRMP) being approved.

As a result of the Fort Nelson LRMP:

Grayling River Hot Springs (1,421 ha)

This Ecological Reserve was established to provide ecosystem representation of the Hyland Highland. It protects a significant hot spring complex 170 km. north west of Fort Nelson. The ER is located on map sheet 94 N/6 at latitude 59 21' 00" and longitude 125 02' 00"

Kotcho Lake Village Site (64 ha)

This reserve, north east of Fort Nelson, provides ecosystem representation of the Etsho Plateau. It is an area of First Nations spiritual and archaeological values and is located on map sheet 94P/3 at latitude 59 01' 00" and longitude 121 05' 00" For more information see:
<http://www.elp.gov.bc.ca/bcparks/explore/parkpgs/kotcho.htm>

Portage Brule Rapids (724 ha)

This reserve provides ecosystem representation of the Liard Plain. The reserve was established to protect a small hot springs and forest on alluvial terraces on the Liard River in the BWBS Zone. The site also has important First Nations significance and other historical value. It is located north west of Fort Nelson on map sheet 94M/10 at latitude 59 38'00" and longitude 126 55' 00". For maps and more information go to www.luco.gov.bc.ca/slupinbc/frtnelsn/fig6.jpg

As a result of the Dawson Creek LRMP:

Rolla Canyon ER (43ha)

Located in the Dawson Creek Forest District, this reserve is located near the community of Rolla on the Pouce Coupe River adjacent to the BC—Alberta border in the Peace Lowlands ecosystem. The reserve protects a rare fossil site. The reserve is located on map sheet 93P/16 at latitude 55 52'00" and longitude 120 04' 00". For more information see www.gis.luco.gov.bc.ca/slupinbc/dawson/42.htm#4.2.3

As a result of the Mackenzie LRMP:

Ospika Cones Ecological Reserve (1,282 hectares)

A new ecological reserve located 200 km north west of Mackenzie, this site protects tufa terraces and pools formed by cold mineral springs, a special natural feature. It is one of only a few cold water tufa formations in the province. ■

Evelyn Hamilton

Using Fire to Save the Garry Oak Ecosystem

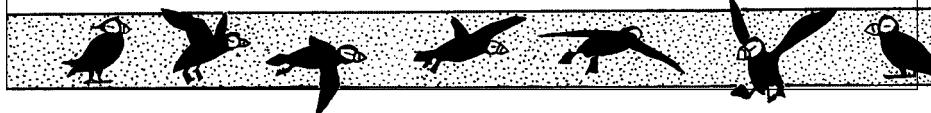
The Friends of Ecological Reserves were entertained and enlightened by Brenda Beckwith's illustrated lecture before the Annual General Meeting this year on February 23rd. Brenda, who is a Ph.D. candidate in Biology at University of Victoria, spoke about the role of fire in the management of Garry Oak ecosystems. She studies the historical management of the camas fields in the greater Victoria area by indigenous groups as well as the potential for re-introduction of fire as a management technique at the University of Victoria with Dr. Nancy Turner.

Beautiful slides highlighted Brenda's discussion of the historical state of this area. She described how the magnificent camas meadows of the past took the hard work of the native people annually burning the fields to ensure a bountiful harvest of camas bulbs to return again the next year. Camas bulbs were a staple for the indigenous people of the Greater Victoria area. Thus they developed sound management techniques to ensure the health of their people. Brenda cited quotes from historical European settlers whose journal entries complained of dark smoke blacking out the horizon from fires set by the native people year after year.

Brenda then spoke further on her own specific research, in which she has been conducting small controlled burns to test how effectively burning can encourage the regeneration of the Garry Oak meadows. Through urbanization, introduction of exotic species and fire suppression, the Garry Oak ecosystem has become one of the most endangered ecosystems in Canada. Brenda Beckwith's research will likely prove very important in the development of tools to manage and maintain this delicate and important ecosystem.

Thanks you Brenda for your illuminating lecture. We look forward to hearing more as your studies continue. ■

Daphne Munroe





SUMMER COURSE OFFERINGS

The University of Victoria is offering an accredited diploma program entitled Restoration of Natural Systems that has been created to disseminate information about environmental restoration and to provide practical background knowledge, training, and skill development for those working in areas related to the restoration of natural systems. The program is specifically designed for people who need to study part time.

Courses are offered in a variety of formats and schedules in order to meet the needs of busy people living in and outside the Victoria area. For example, courses may be offered through a combination of print and interactive computer technology, or as a one-week institute.

The following courses will be offered this summer:

ER 335B Units: 1.5 Restoration of Marine Aquatic Systems

Types, characteristics and processes of natural marine aquatic systems including physical and biotic factors; types of disturbance and their impacts; restoration strategies for different types of marine aquatic ecosystems including estuaries, near shore and offshore systems; case studies of disturbances and restoration (eg. coral reefs, benthic communities and sediments). Note: Background in biology strongly recommended. Open only to Diploma students, except by special permission of the Diploma Advisory Committee. Q50: July 23–Sept 7

- Location: Distance Education with an on-campus component (Aug 13–19) in Victoria, BC
- Instructor: To be announced

ER 336 Units: 1.5 Education, Communication and Dispute Resolution in Restoration of Natural Systems

Role of communication and education in the restoration of natural systems, emphasising the importance of clear communication: principles and techniques of effective communication, survey of communication and educational methods, social and cultural frameworks of the message defining issues, techniques of dialogue, recognizing and resolving conflict, organising data and message. Emphasis on oral presentations. Note: Open only to Diploma students, except by special permission of the Diploma Advisory Committee. M50: May 14–June 29

- Location: Distance Education with an on-campus component (May 28–June 1) in Victoria, BC
- Instructor: Bryony Penn

ER 338A Units: 1.5 Special Topics in Environmental Restoration: Restoration of Grasslands

Selected topics in environmental restoration that address particular issues, industrial sectors or biogeoclimatic variation. Note: Open only to Diploma students, except by special permission of the Diploma Advisory Committee. May be taken more than once for credit in different topics. R50: Restoration of Grasslands This special topics course will focus on types and characteristics of major grasslands; physical and biotic features critical to grasslands functioning including major ecological processes; types of disturbances and their impacts; conservation and restoration strategies including case studies.

R50: July 4–Aug 13

- Location: Distance Education with an on-campus component at the College of the Cariboo (July 16–20) in Kamloops, BC

- Instructor: Don Gayton

For additional information, contact Peggy Faulds, Arts and Science Programs, Division of Continuing Studies, 250 721 8463 or visit www.uvcs.uvic.ca/restore.

Calendar

AUGUST:

The Brackman Island (ER 121) Annual Broom Pull will be the weekend of August 25–26, with Saturday night at the Bateman's cottage on Tortoise Island. The Saltspring Island Kayak Club will be there, helping out.

If you are interested in participating, contact Bristol Foster at 250 537 9774 at least a week in advance.

SEPTEMBER:

Wardens: Register your clean-up team NOW for the **Great Canadian Beach Cleanup**, happening 15–23 September. This is an international event and is not restricted to ocean beaches—streams, rivers, and lakes can all benefit from some community TLC. If you want to establish a clean-up team for your neighbourhood, visit the Pitch-In Canada website at www.pitch-in.ca (e-mail: pitch-in@PITCH-IN.ca; tel: 604 290 0498) to register or contact BC partner Vancouver Aquarium Marine Sciences Centre at www.vanaqua.org tel: 604 659 3487; (e-mail: taylor@vanaqua.org)

In the Victoria area: interested participants can contact Daphne Munroe at 250 595 4571 to register. ■

Researchers Funded for 2001

One of the most important contributions FER can make to the membership and the larger community is to fund field work within Ecological Reserves. Each year, a number of awards are made to scholars in British Columbia whose studies contribute to our knowledge about biodiversity within the province and, ultimately, about our needs for a sustainable future.

This year with the help of gracious anonymous donors we are continuing our financial support of **Dr. Jane Watson** and **Dr. Tom Reimchen**. Jane continues her longitudinal study of sea otter/sea urchin populations in Checleset Bay (ER #109)—rumour has it that the sea otters are now making Clayoquot Sound home, which is a first since they were re-introduced on the northern coast of Vancouver Island. Tom's fish-bear-forestry interaction work which has been celebrated in documentaries and in the media has much to teach us about nutrient cycling in the forest.

This year we also continue support of **Pam Janszen's** extraordinary inventory of *fungi* within the Saturna Island Ecological Reserve (#15). This year Pam found 53 different species that she had not previously observed.

New projects that FER funds for the first time include **Rochelle Campbell's** study of rare butterflies such as Taylor's Checkerspot (*Euphydras editha taylori*—endangered), Island Marble (*Euchole ausonides* subspecies 1—extirpated) and Island Marble (*Plebejus saepiolus insalanus*—also endangered). We will also be supporting **Sue Slater's** survey of invertebrates in hot springs.

Research such as this is invaluable as baseline data for Ecological Reserves against which we monitor the earth's changes over time. We thank every one who applied for funding.

As a condition of funding, grant recipients are required to submit a report on their findings for publication in *The Log* and to participate in our public lecture series. We look forward to reading about the successful applicants' 2001 field results in future issues of *The Log*.

Applications are considered once a year for a spring deadline or April 1. Look for criteria in the fall issue of *The Log* or write to us for more information. ■

Lynne Milnes

Cleaning Our Waterways

Aquatic stewardship, through participation in waterways clean-up has become one of FER's annual activities in the Capital Regional District.

This spring, over 16,000 volunteers of all ages removed garbage from BC beaches, rivers and streams in a collective effort to raise awareness of fragile ecosystems. Pitch-In Canada, now in its 35th year of organizing environmental clean-up projects, co-ordinated the event, with the sponsorship of Brita Water Filter Systems.

The larger, international event occurs this fall, September 15–23. Since 1986, the **International Coastal Cleanup** is a global project of the Center for Marine Conservation (CMC) and is supported by an international network of environmental and civic organizations, governments, industry, and individuals. Information about the amount and types of debris collected serves to educate the public world-wide on marine debris issues and to encourage changes that will reduce debris in aquatic environments.

In BC, this event, known as the **Great BC Beach Cleanup**, has attracted hundreds of enthusiastic participants from across the province. Last year, volunteers collected 18 tonnes of garbage over 200 kilometres of BC shoreline. FER executive will lead a team of volunteers in the CRD for the third consecutive year to clean the beaches of the island ecological reserves of the area.

We encourage you to involve school children, naturalist clubs and individuals in your community to participate in this event. For additional information, check the Calendar on page 9. Register your team now! ■



Websites of Interest

Established in 1995, the **Green Map System (GMS)** is a globally connected, locally adaptable framework for community sustainability, inspired by a desire to help urban dwellers represent and share ecological and cultural resources in their cities; promote good greening efforts in their communities, build inclusive networks that extend community capacity and expedite progress toward sustainability. Green Maps use a shared visual language of icons to chart sites of environmental significance in urban places around the world. Each map merges the ancient art of map making and new media in a unique, localized way by mapmakers of all ages and backgrounds, showcasing the resources that impact the quality of life in a community creating a fresh perspective that helps hometown residents discover ways to get involved with the urban environment. Maps are also of interest to tourists, (especially virtual ones) guiding them to special places and successful greening initiatives they can experience, and then replicate back home.
www.greenmap.com



This site provides **comprehensive information on the impact of the offshore oil and gas industry on the ocean environment and living**

resources, through a collection of articles covering environmental issues surrounding the offshore oil and gas exploration and production, as well as access to the latest oil&gas industry and environment news updated 24 hours a day, 7 days a week.
<http://www.offshore-environment.com>

EcoAction.ca is part of the next generation of Internet tools, **bringing democracy closer to home and making environmental action easy** for everyone. Grounded in the Pembina Institute's solid research and expertise on energy and environment issues, **EcoAction.ca** offers '2-click' e-mail actions (like sending an E-postcard to Prime Minister Jean Chrétien asking him to protect the climate), downloadable postcard and sticker campaigns, strategies for Internet action, and important background materials. It also provides links to detailed background to various issues, demonstrates how to become an effective activist, provides downloadable campaign materials, and a Newsroom with some of the latest breaking stories relating to the environmental campaigns. Future campaigns will focus on Canada's role in international climate change negotiations and greening the federal budget.


The Pembina Institute is an independent, non-profit think tank,

an activist public interest organization and consulting group. Since 1985, the Institute has been committed to protecting the environment and to developing environmentally sound solutions to meet human needs.
www.EcoAction.ca



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