

## President's Report

By Mike Fenger

Another year has flown by for Friends of Ecological Reserves and it is time once again to reflect on our activities, celebrate our successes and look ahead to what we hope will be a higher profile for Ecological Reserves for both the public and Parks staff in this the Park's Centennial year.

Happy 100th birthday BC Parks. You began with the Strathcona Park and it certainly has had its share of problems remaining a natural area. Thanks to the Friends of Strathcona who stepped up to halt the encroachment of mining and logging in the first BC park when government was not up to the task of conservation.

Ecological Reserves have not been around as long as Parks. The Ecological Reserves legislation was championed successfully to government by conservation pioneers such as Vladimir Krajina and Bert Brink. The first ERs were designated in the 1970s under the Ecological Reserves Program staffed by Bristol Foster, Hans Roemer, Jim Pojar and Trudy Chatwin. This program was

continued by Louise Goulet until the Program was decentralized in 1990 and ER management was then included as part of regional Parks staff responsibilities.

FER continues to believe that there is a need for a coordinated science-based Ecological Reserves provincial program with a focus on study of natural areas. The need for protection, monitoring and learning how to manage ecosystems has exponentially increased since the provincial ER Program was discontinued.

There is an increased need and urgency for a higher profile for ERs and the study of natural areas due to the myriad of stresses on BC's ecosystems such as urban expansion, forestry, grazing, recreation access, oil and gas and mining exploration and the development of pipelines and access roads. Some of these activities are adjacent to existing ERs and are affecting them directly.

The concept of ERs was pioneered to create benchmarks so that we (the public who own the

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Visit our website at:  
[www.ecoreserve.bc.ca](http://www.ecoreserve.bc.ca)



# The Log

Spring/Summer 2011

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The views expressed in this newsletter are not necessarily those of the Friends.

Articles for publication are invited. The deadline for submissions for the Autumn/Winter issue of *The LOG* is October, 2011.

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## President's Report (Cont'd.)

natural areas) could understand how to best manage the greater ecosystems outside of ERs in a manner that sustains the elements of the ecosystems. Collectively our development and our continued plans for expansion of development, means that we are causing fragmentation of BC's natural landscapes and ecosystems.. Ongoing study and periodic assessment (monitoring and reporting) of the ER network is needed if it is to truly serve as a lifeboat for BC's diversity. Systematic and periodic monitoring will continue to be advocated by FER.

These same gaps in government management have been identified by the Auditor General in his report on the integrity of ecosystems in ERs and Parks. However, a larger coordinated strategy for monitoring and periodic reporting on the adequacy of current measures for conservation for BC has not yet emerged. Without the implementation of a high-level cross-government conservation strategy, BC will blunder steadfastly towards a systematic and gradual loss of its biological diversity. A new transparent decision-making process is sorely needed to balance and report on the environmental risks, the trade offs and the cumulative effects of current development policies.

Using the five strategic goals in the Friends of Ecological Reserves Strategic Plan as a framework, here is a snapshot of 2010 followed up by some possible activities for 2011.

### Goal One. Support for the ER Wardens' Program.

- ♦ The Okanagan Region had its annual meeting and has

provided the template and some inspiration for Parks staff in other regions by demonstrating how to initiate meetings with ER Wardens and how to work with volunteers for the betterment of ERs.

- ♦ FER was invited to make a presentation and participate in a panel discussion and meeting of Parks staff in Victoria on how to build partnerships and the results were reported in the Autumn/Winter 2011 edition of the LOG.
- ♦ Vancouver Island Region held a wardens' meeting in the spring; their first in a number of years. We hope that this too will become an annual event. Please see the article on page 3.
- ♦ FER together with MOE (Judy Millar and Tory Stevens) updated the Wardens list.
- ♦ Letters of concern were sent to Minister Penner responsible for the Environment, and Minister Kevin Kruger responsible for Tourism. We raised our concerns over expansion plans for Big White & Silver Star Ski Resorts where reservoirs on Vance Creek are affecting the flow through the Vance Creek ER (an ER designated to represent riparian ecosystems). After the response from MOE Water Division, FER remains concerned about changes in water use and timing of freshettes and the lack of monitoring of these changes to Vance Creek ecosystems. Sadly we appear to be learning nothing from this ER. The apparent expansion plans and lifts into the Big White ER were on the corporations' posted strategic plan but no applications have been made for removals from the

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# Vancouver Island Wardens Meeting

By Steve Pratt, BC Parks

**A** Vancouver Island Region Wardens Meeting was held on March 9, 2011. In attendance were: Genevieve Singleton, Honeymoon Bay ER; Dave Polster, Mt. Tzuhalem ER; Jenny Balke, Tsitika River ER; Helen & Robbie Robinson, Comox Lake Bluffs ER; Maggie Little, Bowser ER; Bill Merilees, Hudson Rocks ER; Garry Fletcher, Race Rocks ER; Marilyn Lambert, Oak Bay Islands ER; Al Gaensbauer, #4 Lasqueti Island ER; Connie Miller Retzer, MNRO; Dave Forman, BC Parks; Paul Linton, Mt. Tuam, Mt. Maxwell ERs; Roger Allen, Ballingall Islets ER; Katherine Backlund, Woodley Range ER; Erica McClaren, BC Parks; Judy & Harold Carlson, Sutton Pass ER; Don Closson, BC Parks; Vi Chungranes, Bowser ER; Ron Quilter, BC Parks; Drew Chapman, BC Parks; Katrina Stipec, Ministry of Environment CDC; Judy Millar, BC Parks; Lucas Harris, BC Parks; and Steve Pratt, BC Parks.

Ron Quilter started the day with an update on what is new in the world of BC Parks. Ron provided some information on the staffing and structure of the organization. He spoke about some of the challenges of managing ERs.

The ER Wardens gave presentations on issues in their ERs. At future meetings more time should be allotted for this session. Here are the notes from these presentations in point form.



Attendees of the March 9, 2011 Vancouver Island Region ER Wardens Meeting.

## **Mt. Tzuhalem: Dave Polster, Syd Watts, Wardens**

- Invasive plants, broom removal, HSP Funds to remove broom.
- Dave prepared a report for M O E on Forest Encroachment.
- Douglas Fir removed to historic levels in 2010.
- Meadows decreased 50% over the years.
- Should we be conducting management in ERs, or let nature take its course?
- Needs funding for fencing.
- Over abundance of rabbits and deer.
- Wants to have research results of permits when done and provided to BCPs (such as lichen).

## **Honeymoon Bay: Genevieve Singleton, Warden**

- Reserve shrinking, loss of approximately 50%.
- Pink lilies and other plants.
- Sutton Creek Bridge erosion a problem.

- Boundaries need to be defined and she asks for help GPSing the reserve (mentoring?)
- FORREX training issue was discussed.

## **Tsitika River: Jenny Balke, Warden**

- Reserve is small.
- Increased pressure from neighbours.
- No awareness of Reserve.
- Trespass issues; illegal trail use by hunters and recreationalists.
- Lack of Parks presence.
- Blow down, logging up to boundaries.

## **Comox Lake Bluffs: Helen Robinson, Warden**

- Protecting rare plants, Manzanita, Least Moonwort.
- ER website has list of plants.
- Problems with motorized vehicles, ATVs, motorcycles.
- Beaches are popular campsites and party spots.

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- ER signs, vandalized, shot at.
- Work with Fish and Game Club for joint patrols.
- Install signage at boat ramps, Fish and Game Club and Cumberland side.

**Bowser: Maggie Little & Vi Chungranes, Wardens**

- 116 ha.
- Old growth forest coastal DF and WH.
- Supports red listed zig zag (donner?).
- UBC research site.
- Dumping, stolen goods, hunting camping, fires and grow-ops.
- Possible Elk poaching.
- Removal of natural resources, salal, cedar bark, mushroom picking, firewood cutting.
- Illegal logging – Parks and Forests helped clean up.
- Need signage on highway.
- Need funding for inventory.
- Needs help with inventory (mentoring?)

**Hudson Rocks: Bill Merilees, Warden**

- Few Glaucous Wing Gulls.
- Five Fingers and Snake Island.
- Black Oyster catchers and Canada Geese nesting more on islands.
- Complex issues, garbage management, Snake Island IBA, propose expansion.
- Pelagic Cormorants nesting but not present now.

**Oak Bay Islands: Marilyn Lambert, Warden**

- Many rare plants.
- People not paying attention to signs.
- Whale watching boats disturbing nesting birds.

- Trembling aspen encroachment.
- Marilyn has been doing outreach including with whale watching companies and the public.

**Sutton Pass: Judy Carlson, Warden**

- Signage in disrepair.
- Dammed pond.
- Runoff from highway.
- Rare ferns, shady area.
- Lay out sample plots for ferns.
- Could use help with monitoring (mentoring?)

**Race Rocks: Garry Fletcher, Warden**

- Race Rocks web site.
- Pearson College.
- \$80,000-\$100,000 to run the island.
- Alternate energy sources.
- Webcams present.
- Elephant seals.
- Whale watchers are getting better.
- Emissions from boats and impacts on whales.
- Garry showed some slides.

**#4 Lasqueti Island: Al Gaensbauer, Warden**

- Driest plants in CDF.
- Prickly Pear cactus and mountain juniper (2nd largest in BC).
- No problems, overgrown skid roads from logging days.
- Lots of signs.
- Feral sheep, goats, cattle.
- E 1000' needs maintenance.
- Information collected, needs repository and access to enhance information.
- Funding sources.
- Signage issues.
- Enforcement.
- 10 ha. fenced and needs to be maintained.

## CALENDAR

**Botany BC 2011  
July 14 - July 18**

in the Tatlayoko Lake area of the Chilcotin in central BC. Visit Botany BC website for more information:  
<http://members.shaw.ca/BotanyBC/>

**Summer Camp in  
Strathcona Park**

**July 15 - 19**

Being planned by the Comox Valley Naturalists and BC Nature. This is the 100th anniversary of the oldest park in the BC Parks system.

Contact Pam Munroe at [dpmunroe@telus.net](mailto:dpmunroe@telus.net) or 250-338-0187.

**Mt. Maxwell, Mt. Tuam: Paul Linton, Warden**

- Paint ballers.
- Dogs.
- Rock cairns.
- Illegal trails.
- Trampling rare plants.
- Golf range.
- Would like to ban large groups, Parks to talk to local nature club about this.
- Camping, garbage and invasive plants like broom, foxglove, mullein outcompeting a rare violet
- A new updated ER pamphlet is required.
- Fire retardant used in ER has impacted rare plants, smells bad.

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# Wall Lizards to Wolverines – Special Conservation Challenges for British Columbia

By David Fraser (compiled by Mike Fenger)

*Dave Fraser graciously accepted the FER invitation to provide the public lecture at the Friends of Ecological Reserves annual general meeting 2011. Dave was a consulting biologist who managed naturalists programs for BC Parks before taking a full time position as a Senior Biologist within the Ministry of Environment. Dave is the provincial representative on the COSEWIC (Committee on the Status of Endangered Wildlife In Canada).*

Dave provided us with a review of the wildlife abundance and diversity as experienced by the early explorers in BC. While charting the waters of Saanich inlet and swinging in their hammocks, sailors would fall asleep to the distinctive sounds of the breathing of numerous whales.

Whaling stations were soon established on the shores of the Salish Sea, such as the one at Brentwood Bay, and in a few short years the population of resident humpback whales were decimated due to commercial whaling activities. The year was 1794.

Sea Otters were the next species to be hunted to commercial extinction. Their extinction from their historic range occurred first from the sea around Japan, and then eastward to the outer Aleutian Islands. The decade was 1790 to 1800. By 1820 the remaining Alaskan populations were commercially extinct and by



1840 the remaining west coast populations extending, from BC to California, were also gone. First Nations lost a major trade item when the sea otters virtually disappeared from most of their historic ranges. Thankfully some remnant populations survived.

Fur seals became the next species to receive commercial interest. In the year 1894 there were nearly 100 schooners in the N.W.C Sealing Fleet in Victoria Harbour.

Fur seals contributed to the American interest in the Alaska purchase. The commercial harvest and trend towards over exploitation was noted by Henry Wood Elliot the government agent who accompanied the sealers. Henry Elliot spoke to the need for conservation and he kept the conservation con-



cerns alive and was instrumental in the 1911 Fur Seal Convention, the first conservation treaty on the west coast.

The presence of sealers meant continued harvest of the now rare remnant populations of sea otters as the price then for their pelt was equivalent to 30,000 to 40,000 dollars today. From the small pockets of sea otters in Prince William Sound and Amchitka Islands, it was possible to re-introduce this species to the BC coast and in 1969 and 1972; 89 sea otters were transplanted. Since then the sea otter has been down-listed from 'Endangered' to 'Threatened' to 'Species of Concern'.

There are eight resident species in BC that have gone extinct. This is lower than other jurisdictions such as California that has lost 53 of its resident species and Hawaii that lost 217 species over the same time period.

Today in BC we have 1597 species and 329 plant communities on Red & Blue Lists.

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A big challenge with so many species listed is how to prioritize conservation efforts. COSEWIC (Committee on Status of Endangered Wildlife in Canada) figures for BC indicates that there are multiple species listed for Garry Oak ecosystems, the southern Okanagan steppe ecosystems and Queen Charlotte Sound marine and terrestrial ecosystems.

To understand conservation options, it is beneficial to review how populations collapse. Some species collapse from the edges of their historic ranges towards the middle; e.g, the Leadbeater's possum in Australia. However, other species collapse from the entres of their hisoric ranges to the periphery; e.g, the black footed ferret, the Giant Panda, the European mink, the water buffalo of India and the Australian dusky hopping mouse.

Of the mammals that have been reduced to 25% of their historic range, 74% have collapsed to the periphery of these ranges. In North America the most common patterns of mammal population collapse are from east to west and from south to north. The map of North America by Laliberte and Ripple 2004 shows the pattern of range contractions of Northern American carnivores and ungulates. In North America species are collapsing from their historic ranges toward BC and BC now has the most intact predator prey assemblages remaining in North America.

So the listing of species and the collapse of populations is a

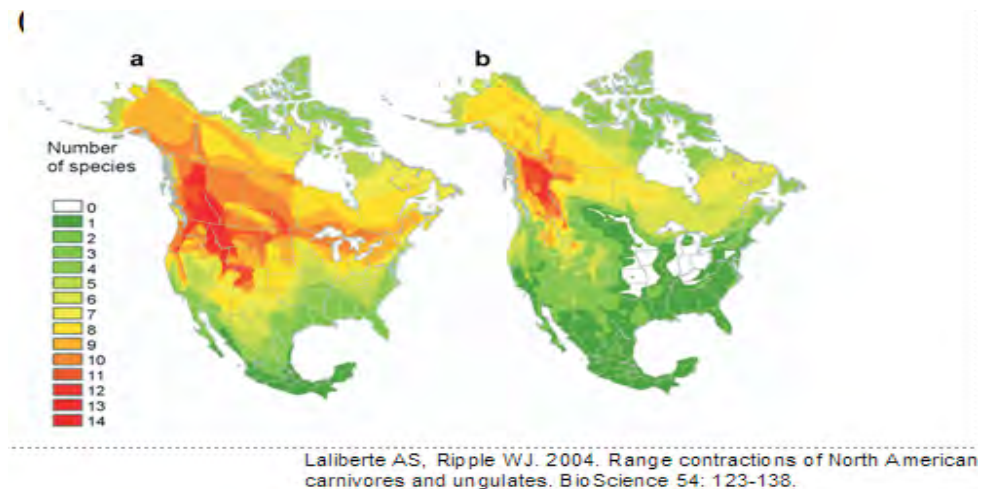


major conservation challenge and is used to strategically determine where to place conservation efforts.

A second challenge for conservation is the increasing number of introduced species interacting with and displacing indigenous species. European wall lizards were first noted in a single natural setting on the Saanich Peninsula in 1970 when they were first available from pet stores. Today they are well established on the Saanich

Peninsula. Lizards are inadvertently transported in horse trailers and they continue to expand their range. The impacts of these lizards on birds and mammals that rely on insects is unknown but they do compete and may displace some native species over time. The rate at which introduced species are spreading is growing exponentially from 600 species over 200 years to current conditions where a species is added every

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- Would like to fence out deer estimated at \$60K.
- Cover boards for sharp tailed snake.
- Western Oak looper also killing the Douglas-fir

**Woodley Range: Katherine Backlund, Warden**

- ER in Ladysmith.
- Birds Foot Trefoil.
- Needs new signs.
- Presented slide show.

**Connie Miller Retzer, MNRO**

- Breeding Bird Atlas.
- Mitlenatch (not an ER).

**Judy Millar, Terrestrial Ecologist, BC Parks**

- Visited all ERs in CDF zone in 1995.
- Started with BC Parks in 1990
- Worked as an ecosystems biologist and now is with the Conservation Section in Victoria with ER Warden responsibilities such as reviewing applications prior to them being sent to regions.
- Lots of student warden applications.
- Initiated Warden ride-along mentoring program.
- Defining Ecological Integrity.
- Citizen Science Monitoring.
- Auditor General's Report and BC Park's action plan.

Judy previewed Ecological Reserve presentation and provided copies for Wardens. Yes, would like to support-invasive plants, inventories.

**Lucas Harris, Project / Research Assistant, BC Parks**

Lucas introduced the Parks 100 initiative, Ecological Reserve Warden Day.

**Parks 100 Conservation Events Fact Sheet**

As part of Parks 100, BC Parks is providing funding for a variety of conservation events that highlight conservation work taking place in provincial parks and protected areas.

**Ecological Reserve Warden Day**

Ecological Reserve Wardens are volunteers that serve an invaluable role in the long-term protection of Ecological Reserves. As part of Parks 100, BC Parks is facilitating Ecological Reserve Warden Days highlighting Ecological Reserves and Wardens across the province. The goal of Ecological Reserve Warden Days is to inform members of the public about Ecological Reserves, their role in the parks and protected area system and the special nature of a particular reserve. Events could focus on various activities such as:

- Educational field trips
- Inventory
- Monitoring
- Creating a display on an ecological reserve and then attending other community events such as farmer's markets, environmental fairs, etc.

BC Parks staff and/or Ecological Reserve Wardens can create an event to highlight a specific Ecological Reserve. The goal is to include the public in the activities of a Warden and inform them about how important volunteer Wardens are to the continued conservation of these special areas. Preference will be given to

event proposals that occur in Ecological Reserves that are appropriate for public access and relatively close to developed areas, in order to make events more accessible to the public.

Connie Miller Retzer, Ecosystems Biologist and Erica McClaren, BC Parks Conservation Specialist, spoke about Mitlenatch Island Volunteer program and had a brainstorming session with the Wardens about other potential projects within ERs. Here are Erica's notes from the session:

**Brainstorming Session Notes from ER Warden Meeting**

Question: How can BC Parks facilitate inventory, monitoring and research in Ecological Reserves?

1. Training around invasive plant removal techniques and timing.

a. [www.invasiveplantcouncilbc.ca/](http://www.invasiveplantcouncilbc.ca/)  
b. [www.coastalinvasiveplants.com/invasive\\_plants.php](http://www.coastalinvasiveplants.com/invasive_plants.php)

2. Need BC Parks to provide previous inventory/monitoring data that have been collected within ERs to Wardens so that Wardens can assess information gaps.

**Action:** ER Wardens would like Area Supervisors to include them in Park Use Permits and send any ecological reports that come from research in ERs under permit to Wardens.

- a. BC Parks recognizes this is a huge gap in their ability to properly implement conservation within PPAs. They have started trying to get some previous ecological

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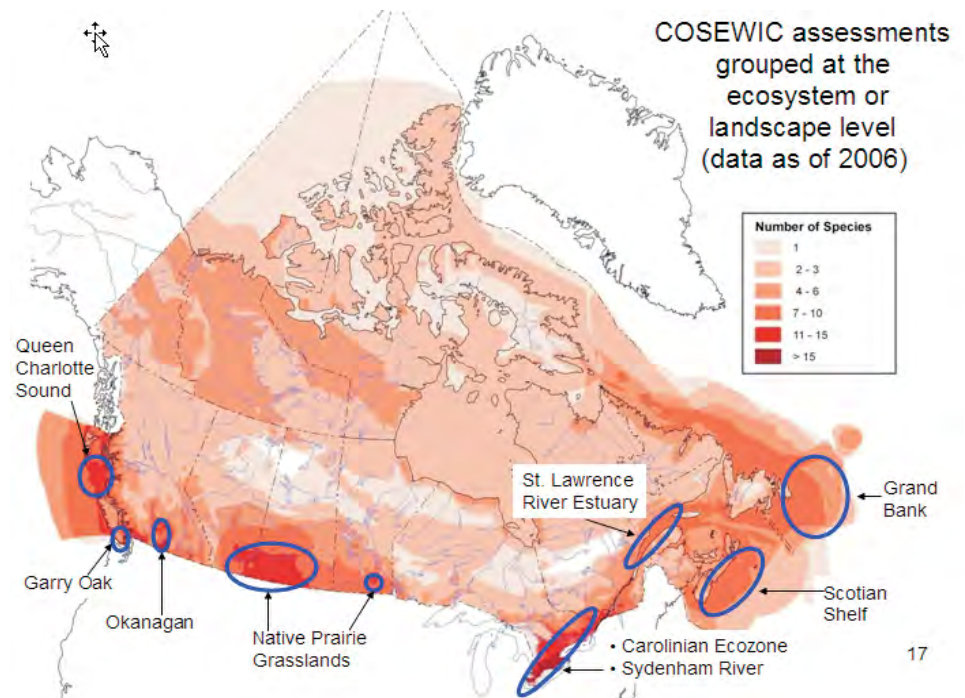
two weeks as is the case in the last 13 years.

A third and major challenge for biological systems is climate change. Species move at different rates and indigenous species with the least ability to migrate, will have the best opportunity to find their way when there is redundancy and protection of their habitats so they can shift and distribute to new suitable habitats as climate shifts. This means more attention to landscape level conservation and networks and corridors of suitable habitat.

A fourth challenge for the future of conservation depends on the extent to which there is a social license in support of conservation. Information from Statistics Canada over a 10-year period shows the cultural mix of BC's population is shifting away from European cultures towards cultures of Asia and the Pacific. During this same period there was increased urbanization as well as a move from rural communities to urban centres, resulting in a decrease of familiarity with the natural environment. This trend away from nature is also noted in the decline of hunting in BC.

It was noted that the pressure on private land equals that on Crown land even though private land is less than 6% of BC total area.

Richard Louv's book *Last Child in the Woods*, outlines the degree to which urban children are disconnected from nature. He coined the phrase 'nature deficit disorder'. More work on how to reconnect youth to nature was done by Wells and



Lekies in press Children, Youth and Environment (Vol. 16:1) who state that: *"Our study indicates that participating in wild nature activities before age 11 is a particularly potent pathway toward shaping both environmental attitudes and behaviors in adulthood. Participating in nature-related activities that are mandatory evidently do not have the same effects as free play in nature, which don't have demands or distractions posed by others and may be particularly critical in influencing long-term environmentalism."*

This suggests that unstructured time in a natural environment before the age of 11 is the best way to build awareness of the natural environment and a requisite for individuals to support conservation incentives as adults.

Dave's presentation ended with the conclusion that there are huge challenges for conser-

vation-minded individuals and that strategies are needed to:

1. allow species to move (corridors, slopes),
2. buy them time to adapt,
3. built in duplication to allow for bad things to happen, and
4. recruit the population to conservation and fight nature deficit disorder.

The talk was followed by an excellent discussion from the audience and there was a high level of excitement generated by Dave.



European wall lizard.



data into online sources and these include:

EcoCat:

[www.env.gov.bc.ca/ecocat/](http://www.env.gov.bc.ca/ecocat/)

CLIR:

[www.env.gov.bc.ca/clir/](http://www.env.gov.bc.ca/clir/)

SPI:

[http://a100.gov.bc.ca/pub/site/search\\_reset.do](http://a100.gov.bc.ca/pub/site/search_reset.do)

Conservation Data Centre:  
<http://a100.gov.bc.ca/pub/eswp/>

b. They are striving to make this a priority in future to consolidate these sources and also to move forward with data collection and storage in a standardized fashion.

3. ER Wardens could go to university programs such as Resource Management Officer Training Program at Vancouver Island University to set an annual work project within ER for students.

4. ER Wardens would like to see BC Parks take the lead in providing direction to ER Wardens for how they would like data to be collected and stored.

a. Provincial Standards for data collection (with forms) for some aspects of ecological work can be found at:  
<http://archive.ilmb.gov.bc.ca/risc/pubs/index.html>

**Action:** ER Wardens requested a workshop be held to train them on standardized data collection techniques and where to enter data.

5. Bioblitz with experts in different fields required to fill information gaps in ERs would be a great way to gather inventory

information.

a. BC Parks staff also need to ensure they receive copies of any data ER Wardens collect in personal notebooks.

6. GPS units would be a handy piece of equipment for recording occurrence data.

7. BC Parks staff need to invite University Departments to conduct research within PPAs to help close information gaps. As well, a more efficient permitting system needs to be put in place to facilitate this research.

Conservation Data Centre, **Katrina Stipek**, Client Request Specialist, Ministry of Environment, gave a very informative presentation on how the Conservation Data Centre works and the steps Wardens can take to input data

into the system. Wardens can contact Katrina directly with questions on how to best submit or access the data.  
[cdcdata@gov.bc.ca](mailto:cdcdata@gov.bc.ca)

**Doug Herchmer and Tim Clermont**, the volunteers for The Englishman River Mud Flats gave a short introduction to the protected area and briefed the Wardens on some of the issues and successful projects that have taken place.

The group then headed over to the Mud Flats and enjoyed a tour of the area guided by Doug and Tim.



Vancouver Island Wardens head to the Englishman River Mud Flats.

ER for lift lines. These developments were reported in the Spring/Summer edition of the LOG. Thanks to the wardens for these areas who helped track down the on-the-ground facts.

### **Goal Two. Support Research Studies in ERs.**

- ♦ In the past FER was able to provide funding for ongoing research projects from funding provided by Foundations. However, no research funding is currently available to FER. We regret the loss of funds identified for specific deserving researchers and hope to be able to offer funds to researchers sometime in the future.
- ♦ Some Warden-driven research/monitoring is underway and some of this information is accessible; e.g., Race Rocks observations which go on the racerocks.com site. Other Wardens have carried out observations and monitoring. FER hopes that these field notes will be provided to FER so that they can be available on the FER website, as well as being passed to MOE for their files.
- ♦ No progress has been made on improving access to and awareness of existing studies being carried out in ERs. Baseline and monitoring can benefit most ERs. FER is not clear where Ministry of Environment is doing field studies in ERs, either using their own staff or contractors. This in part reflects the difficulty of having the ER records restricted to regional offices and not centrally managed or shared.
- ♦ Some of the past research in ERs has now been placed into the up-dated ER handbook.

Thank you Tory Stevens for facilitating this! We hope for a much more fluid updating of activities to web sites in the future.

### **Goal 3. Support Development of a Resilient Science-based ER System.**

- ♦ FER engaged in Race Rocks and Scott Island consultation processes to add marine protection to waters around these two Ecological Reserves. This was a learning experience and the process in each ER was led by a different Federal agency, Department of Fisheries and Oceans and Environment Canada Canadian Wildlife Service. Each agency takes their mandate from their respective acts and neither are able to embrace an ecosystematic approach. DFO addresses fish in the water column and CWS addresses sea birds. Race Rocks has now finished the stakeholder consultation process and drafting instructions have been agreed to in principle. First Nations consultation was separate although a unified management approach was strongly supported. The Ecological Reserves were 30 years ahead of the Federal government and more ecosystematic.
- ♦ The rate at which ERs are being added to the network compared to the rate at which they are being removed means BC has a shrinking number of ERs. Happily ERs are being subsumed into larger protected areas in National Parks. This affords the lost ERs, in theory, better protection, as this reduces loss of integrity that could result from over development and fragmentation.

- ♦ FER supplied information to the Auditor General and fully supports concerns raised. The ER system is losing integrity and is incomplete and there is no mechanism to add new ERs.
- ♦ FER received proposals from two environmental groups to add two ERs to the provincial ER system. FER does support the proposed Pink Mountain ER in the Peace Region and the Rosebud ER in the Cariboo. The proposed Rosebud Mountain ER in the Caribou Plateau is described by James Steidle as a spectacular place and the most significant patch of (mostly) unlogged, virgin forest in the entire area, and as such can be an important regional example of an original, old-growth Douglas Fir forest for future generations. FER concurs that there is an absence of representation of Douglas fir ecosystems in the central interior and this is a significant gap and a much needed natural areas benchmark. The Burke Mountain Naturalists have proposed an ER for Pink Mountain in north-eastern BC. This protection is needed as there are rare and fragile plant communities on the 1700 meter plateau which are at risk from resource extraction, microwave towers and a service road. It needs public support and help to protect this unique assemblage of plants and unusual arctic butterflies. FER supports the proposal that this small area be protected as an Ecological Reserve.

### **Goal 4. Raise Awareness of the Value of Ecological Reserves.**

- ♦ FER maintains the FER web site but it is suffering from its age and the older architecture does

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Boundaries of the proposed Rosebud Mountain Ecological Reserve located in the Caribou Plateau.

not make the task of the web master easy.

- ♦ We successfully produced three issues of the newsletter the LOG, but are reducing this to two issues as a cost saving measure.
- ♦ FER worked with other ENGOS to promote ERs (i.e., the expansion of the area of marine waters adjacent to existing marine-centred ERs and support for new ERs).
- ♦ FER also believes we had some influence with federal Senators and this was reflected in their recommendations to keep lighthouse infrastructure and keepers for Trial Island and Race Rocks ERs. Our argument was that the keepers' presence

provides ecological benefits. Extra eyes and ears and a place to house monitoring equipment for these fragile areas is a benefit and consistent with the intent of an ER.

#### **Goal 5. Sustain a Nurturing and Effective Organization.**

- ♦ Ministry of Environment staff helped boost the morale of the FER Board members by honouring long standing members of the FER Board at a Partnerships Banquet.
- ♦ In 2010 we had a Board members' field trip to San Juan Ridge ER with Hans Roemer and in 2011 visited Woodley Range and Ladysmith Bog ERs with ER warden Gary Backlund. (see

article on page 13)

- ♦ We also held our annual field trip to Race Rocks This trip is lead by Pearson College staff and is open to the public .
- ♦ We are also pleased to add a new member to the board and welcome the considerable experience of Dr. Rick Page.
- ♦ We held monthly Board meetings except for the summer months. FER continues to be a small ENGO with no regular staff so keeping volunteers engaged means we need to be friendly and have some fun along the way. As part of our strategic plan we use the following principles to help

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nurture the group.

### FER Values

- ▶ **Attachment** - we have a strong emotional and intellectual attachment to the values that ecological reserves represent.
- ▶ **Volunteers** - we support local volunteers dedicated to specific ecological reserves.
- ▶ **Science** - we value science-based understanding of ecosystems.
- ▶ **Respect** - we respect and gain understanding from the wisdom of elders connected to ecological reserves.
- ▶ **Youth** - we value the energy of youth and strive to encourage their involvement in our organization and with ecological reserves.
- ▶ **Collaboration** - we take a collaborative approach to issues and strive to work in partnership with other initiatives and organizations to accomplish our goals.
- ▶ **Focus** - we undertake targeted and focused actions, based on our organization's resources and priorities.

### PRINCIPLES

The path ahead will be discussed at the Board meetings but they may include some of the following.

#### A Look Ahead to 2011

#### Goal One. Support for the ER Wardens Program.

- ♦ Continue to advocate for Wardens' programs and promote regular regional meetings and meaningful involvement.
- ♦ MOE has identified Wardens Days as an appropriate activity for the Centennial year and some funds will be applied for to help with this. We will likely



Members and guests of the FER Board visit Woodley Range ER in early May.

- team up with some other organizations and link to activities planned for parks in order to use these activities to educate the public on the importance and value of ERs.
- ♦ Further explore use of ER Wardens for goal 2 activities and "citizen science".
- ♦ Others to be decided.

#### Goal 2. Support Research Studies in ERs.

- ♦ MOE has indicated a willingness to engage in citizen science.
- ♦ The need for a research strategy for ERs was identified in 2005.

#### Pending

- ♦ Upcoming Parks Research Forum and possible involvement.
- ♦ Get the existing research in each ER accessible on the web.

#### Goal 3. Support Development of a Resilient Science-based ER System.

- ♦ Advocate actively for the two new ERs proposed by other organizations.

- ♦ Work through the Auditor General's Office on a follow-up audit for a more defined process to designate new ERs as well as addressing ecological integrity loss in existing Ecological Reserves.
- ♦ Obtain a list of ERs from the Ministry of Environment with restoration scheduled.

#### Goal 4. Raise Awareness of the Value of Ecological Reserves.

- ♦ Support our student volunteer, Elyse Matthews with a questionnaire aimed at UVic professors of Biology and Geography, and their awareness of local ERs and existing or desired field studies.
- ♦ Continue LOG publication and meetings.
- ♦ Improve elements of the web site so that it captures more information.

#### Goal 5. Sustain a Nurturing and Effective Organization.

- ♦ ERs received a much higher

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# A Visit to Woodley Range ER

By Wynne Miles

On Sunday, May 8th, seven Friends of Ecological Reserves Board members and two guests drove to the outskirts of Ladysmith on Vancouver Island to meet Gary Backlund and tour Woodley Range Ecological Reserve. Gary, along with his daughter Katherine are the ER Wardens and Gary was our intrepid guide for the day's outing.

The vegetative cover of the reserve is divided between forest, meadows and wetlands. Our hike took us to several of these beautiful meadows where we encountered sea blush (*Plectritis congesta*) and shootingstars (*Dodecatheon pulchellum*) in full bloom.

We explored several large meadows. The meadows, with shallow soils over glacier polished smooth sandstone, support a rich spring flora before the seepage areas dry out later in the year. Spring gold (*Lomatium utriculatum*) and Alaska saxifrage (*Saxifraga ferruginea*) were out, but as this year's spring has been quite cold, many of the flowers were not yet in bloom.

In one wetland we saw the red listed bog bird's-foot trefoil (*Lotus pinnatus*) which was not yet in bloom. In the creek feeding this wetland we found the sometimes overlooked aquatic moss (*Fontinalis antipyretica*).

The forests in the Woodley Range ER are mostly second growth Douglas fir and Arbutus



Woodley Range ER Warden Gary Backlund.

forests. We also passed through a moister site with bigleaf maple (*Acer macrophyllum*) and red alder (*Alnus rubra*). The understory in this area contained vanilla-leaf (*Achlys triphylla*) which was not yet in bloom, Calypso orchid (*Calypso bulbosa*) and western trillium (*Trillium ovatum*) which were both in full bloom.

The Ecological Reserve protects a minimum of 187 vascular plant species, 27 of which are considered rare. These rare plant species include: dune bentgrass (*Agrostis pallens*), slimleaf onion (*Allium amplexans*), white-top aster (*Aster curtus*), green-sheathed sedge (*Carex feta*), Nuttall's quillwort (*Isoetes nuttallii*), Howell's violet (*Viola*

*howellii*) and bog bird's-foot trefoil (*Lotus pinnatus*).

Gary informed us that some of the threats to this ER are illegal recreational activities such as motorbike and equestrian use, as well as invasive species such as Scotch broom. Broom eradication sessions have been held periodically and seem to be keeping the plant at bay. Sadly bull frogs (*Rana catesbeiana*), an invasive introduced species in BC, have now invaded the wetlands in the area. Gary also pointed out one location where gyprock had been dumped adjacent to the ecological reserve, and despite requests to have it removed it remains in place. This is a concern as when gyprock gets wet the gypsum

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dissolves into calcium and sulphate which could leech into the nearby wetlands.

Our group also decided to take a quick side trip to Ladysmith Bog Ecological Reserves which is only a short distance away from Woodley

Range. This reserve protects an area of undulating lowland with numerous lakes, ponds and wetlands in the depressions.



One of the large open meadows surrounded by a Douglas fir and Arbutus forest.



A view to Ladysmith Harbour from the southwest facing escarpments.



Bog bird's-foot trefoil (*Lotus pinnatus*) which is a red-listed plant in BC.



# The Case for a Pink Mountain ER

By Ron Long

**P**ink Mountain is located 180 kilometers north of Fort St. John in northern British Columbia. The mountain is only 1700 meters at its highest point but is so far north that the summit is uniformly arctic/alpine tundra habitat.

Pink Mountain and its immediate surroundings comprise one of the most biodiverse areas in BC. It supports large populations of pine martin, moose, black bear, elk, whitetail deer, mountain caribou and Stone's sheep. The bird population includes Golden Eagles, Horned Larks, Sandhill Cranes, Blue Grouse and Rock Ptarmigan.

Ptarmigan are the only birds to over-winter on the summit. They are entirely dependent on alpine willows for their survival.

Pink Mountain is internationally known in the butterfly community for its concentration of rare Arctic butterfly species.

Most significant is the plant assembly. The northern location and tundra habitat bring together a unique and rich community of rare and rarely seen arctic/alpine plants. A comparison with peaks of similar height to the west shows that Pink Mountain is entirely different from other mountains. Nearby peaks have almost no flowering plants and support primarily a thick turf of grass.

The foothills and mountains in the vicinity of Pink Mountain are covered by Cretaceous rocks, which mainly consist of sandstone and shale.

At Pink Mountain erosion has removed the Cretaceous rock and exposed the underlying limestone at the south end of the summit. This means that the soil derived from these limestone rocks has a considerable amount of Mg, Ca, P and salts, which other mountains don't have. It is likely that the presence of these nutrients is responsible for the unique flora found on Pink Mountain.

Because of its unique geology, Pink Mountain is significantly different from any other mountain in the North Peace district.

The Muskwa-Kechika management Area gives some protection to a large area to the west of Pink Mountain. It has been suggested that this management area may contain other sites that duplicate Pink Mountain. However, the entire Muskwa-Kechika is overlain by the young Cretaceous rock with limestone only exposed on the highest peaks where no soil is formed. It is almost certain that the Muskwa-Kechika does not have a Pink Mountain equivalent.

To-date one red-listed and no less than ten blue-listed plant species have been collected on the summit of Pink Mountain. Red-listed plants are in danger of extinction in BC and blue listed plants are severely threatened in BC.

## **Pink Mountain Red- and Blue-listed Plants**

*Alopecurus alpinus* - Red  
(Known in BC only from Pink Mountain)

*Luzula rufescens* - Blue  
*Luzula confusa* - Blue  
*Festuca minutiflora* - Blue  
*Carex rupestris* - Blue  
*Polemonium boreale* - Blue  
*Silene involucrata* ssp. *involucrate* - Blue  
*Oxytropis jordalii* ssp. *davisii* - Blue  
*Ranunculus pedatifidus* ssp. *affinis* - Blue  
*Minuartia elegans* - Blue  
*Androsace chamaejasme* - Blue

This large number of threatened species has been recorded even though there has never been a complete and thorough inventory of species on Pink Mountain. It is expected that further study will reveal additional red- and blue-listed plant and butterfly species.

The Conservation Data Centre confirms that there is not another site north of Vancouver that supports so many red and blue listed plants. The rare and rarely seen plants are concentrated on the south end of the Pink Mountain summit. The roadsides on this portion of the summit are now critical habitat for three of the blue-listed species and many of the rarely seen species.

There is a Provincial park on Pink Mountain established to protect fossil beds and rare butterflies.

Pink Mountain Provincial Park is located on the steep west side of the mountain. The area of the park is so steep that continuous rock and soil movement makes small plant growth impossible.

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No plants = no butterflies. Pink Mountain Provincial Park provides no protection for the plants.

Current commercial activity on the summit consists of several communication antennas and two gas wells. Several antennas are powered by diesel and propane generators. These generators create sound pollution that is audible at every point on the summit and the heavy trucks carrying fuel are destroying the road in places. The gas wells have resulted in the bulldozing of several hectares of fragile alpine habitat and transmission lines remain to be built. There is survey evidence to indicate additional wells are planned. The gas wells are located to the north of the main plant concentrations.

The entire summit is now threatened by a plan to place forty wind turbines on the mountain. This plan has the potential to completely destroy the biodiversity of the Pink Mountain summit. Because of its unique and rich biodiversity a portion of the Pink Mountain summit needs to be protected.

We propose preserving an area extending in the south from the last switchback on the existing road, which is at 1500 meters and corresponds to the tree line, to a point just short of the first gas well to the north.

This preserve encloses most of the plants of interest, covers only about one third of the summit and leaves the entire northern two thirds of the summit for gas and wind development.

That being said, the question



Northern Jacob's-ladder (*Polemonium boreale*). (photo courtesy of Daniel Mosquin)

of the appropriateness of any wind development on Pink Mountain needs close examination from an environmental and visual point of view.

The preserve also encloses all of the antennas on the highpoints of the summit but the preserve should not affect the operation of these facilities. There must be no expansion of these facilities.

The government's own land use plan provides for the protec-

tion of sight corridors and specifically mentions the Alaska Highway as such a corridor. The Pink Mountain wind farm would be clearly visible from the highway. The land use plan also specifically lists the preservation of endangered species and habitats.

The existing road on the summit must be preserved as is. A wind development on Pink Mountain would require a

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profile in MOE and with the public due to the Auditor General's Report.

- ♦ We hope to increase membership and build a larger operating budget. FER intends to continue to be volunteer-run and not acquire staff. This means we will need to stay focused and be satisfied with our small contribution to conservation and not be overwhelmed with the enormity of what keeping the biological legacy really means.
- ♦ Continue our field trips and maintain our sense of fun in the course of volunteering.



FER Board visit to Ladysmith Bog ER in early May.

## Thank You from Recipient of Vicky Husband Award

Friends of Ecological Reserves:

I am writing to express my thanks as the grateful recipient of the Vicky Husband Award for Environmental Stewardship this year. I am a fourth year student majoring in Environmental Studies and Women's Studies at the University of Victoria.

I started my academic career focusing on English. However, in my second year, I transferred from Calgary to UVic to pursue Environmental Studies. Once at UVic, I discovered Women's Studies as well, and I have found myself consistently inspired and challenged by the courses I have taken in both departments. At UVic I have had the opportunity to meet many exciting professors and students who have motivated me to explore opportunities, to think hard and to think well, and who have been an inspiration in my daily life. Among these individuals I met a good friend who

introduced me to the Q'ente Textile Revitalization Society and the Mosqoy Sacred Valley Youth Fund, organizations that I have become deeply involved with over the past four years.

While I have always had, and continue to have, a passion for local sustainability initiatives, my involvement in Q'ente and Mosqoy has allowed me to contextualize local issues within a global framework. Volunteering has also provided me an unlikely opportunity to connect with my peers in Peru. I have felt empowered to create positive change through my involvement with Mosqoy and Q'ente, and have developed a strong desire to continue to commit my life to positive, sustainable, collaborative change making in the future. I hope to pursue a Masters after graduating next year in critical anti-racism studies, which I believe is necessary to address a

range of inequities; including the weight given to world views that neglect to incorporate equitable and sustainable use of land and resources.

I am truly thankful for this scholarship. Besides being integral in assisting me with the cost of my studies this year, allowing me to focus on the issues nearest to my heart, I feel honoured to be recognized for my dedication to my studies and sustainability.

Warmly,  
Jasmine Nielsen  
Victoria, BC  
November 23, 2010

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[www.ecoreserves.bc.ca](http://www.ecoreserves.bc.ca)





substantial road to accommodate the thousands of construction vehicles that would be used. The Bear Mountain wind farm, located south of Fort St John, required 17,000 truckloads of concrete alone. The existing road on Pink Mountain would need a total rebuild and this would destroy a substantial number of important plants.

We propose that a new road be built from the base to the north end of Pink Mountain summit. This is unlikely to cost very much more than the rebuilding of the present road and would protect the south end of the mountain.

The present road would be permanently closed at the base of the mountain.



Western trillium (*Trillium ovatum*).



Calypso orchid, also known as a fairy slipper (*Calypso bulbosa*).



Wynne Miles (FER Board member) examines aquatic moss (*Fontinalis antipyretica*) during recent field trip to Woodley Range Ecological Reserve.



# FRIENDS OF ECOLOGICAL RESERVES MEMBERSHIP FORM

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# Race Rocks in the Rain



Eight hardy souls braved the cold and wet May 15th trip to Race Rocks. They were met at the dock by Eco Wardens Ryan Murphy and Adam Harding (picture above) and a female elephant seal posed for a picture as well. (We would like to thank Scott Akenhead for providing these photos.)



## The Log



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