

FRIENDS OF ECOLOGICAL RESERVES NEWSLETTER

MARCH 1989

The Friends of Ecological Reserves dedicate this issue of our newsletter to the memory of Mrs. Margaret (Peggy) Driver. Mrs. Driver lived in Osoyoos and was an avid naturalist and conservationist until her death.

Generous donations were made to the Friends of Ecological Reserves on her behalf. We would like to thank these donors, and say that the memory of Mrs. Driver lives on in our conservation efforts to set aside natural areas for the future.

This issue will feature an article on the "Osoyoos-Arid Biotic Area", one of Canada's most unique and unknown natural areas.

President's Report

This winter has found me busier than ever with conservation activities. My growing concern over the disappearance of our old-growth forest, dwindling habitat for wildlife, and environmental calamities such as the oil spill. Ecological Reserves have an ever-increasing role in acting as environmental baselines against which we can measure the effects of our resource policies. They safeguard valuable genetic resources and act as outdoor classrooms for a most important form of learning. It is imperative that we have Ecological Reserves to answer questions that "man has not yet learned to ask".

As James Hornaday aptly wrote as long ago as 1915

"The wild things of Earth are not ours to do with as we please. They have been given to us in trust, and we must account for them to the generations which will come after us to audit our accounts."

The Friends of Ecological Reserves wishes to extend our thanks to the **Eden Conservation Trust** for their generous donation of \$10,000 for research and education. This funding has enabled us to fund the Forestry Research Report in the Khutzeymateen and will assist in many of the 1989 projects.

We would also like to acknowledge the generous donation of \$5000.00 made by an anonymous donor for the purpose of conserving the old-growth forests of B.C. This donation came in response to an interview with Peter Gzowsky on "Morningside". This funding is very much needed, and will be put to use protecting rainforests.

I would like to extend a special welcome to two new members of our Executive: Bernie Keppler and Gwen Walter. Bernie, the new treasurer has been hard at work sorting out our accounts. His past accounting experience and suggestions are certainly appreciated. Gwen is the new Secretary and her typing and secretarial experience will be valuable assets to our organization.

Our Executive is presently composed of Vicky Husband (president), Trudy Chatwin (vice-president), Gwen Walter (secretary), Bernie Keppler (treasurer), Wilf Medd (membership secretary), and Bristol Foster (director). Nominations for the 1989 Executive are now open. We would like to increase the size of our executive and have more participation in decision making by our members. Please attend the Annual Meeting!

THE OSOYOOS-ARID BIOTIC ZONE

If you drive east and south on highway 97 across British Columbia, you will notice that as you near Keremeos, the landscape becomes progressively drier. Near Osoyoos Lake and the International boundary the slopes and benchlands become a treeless, starkly sculpted scrubland of silvers and browns. This area is often referred to as "Canada's pocket desert"; part of a continuum of arid desert lands that stretch from Mexico and Arizona in the south, to a narrow portion of the Okanagan and Similkameen valleys in the north. The Osoyoos-Arid Zone lies in the rain-shadow of the Selkirk Mountains and receives less than 20 cm of precipitation annually! Summers are long and hot in this valley bottom area, and winters are comparably mild.

Within this zone there is wetter riverine habitats along the Okanagan River, but it is the dry benchlands, cliffs, and hillslopes that support the unique flora and fauna.



Evening Primrose

Plants

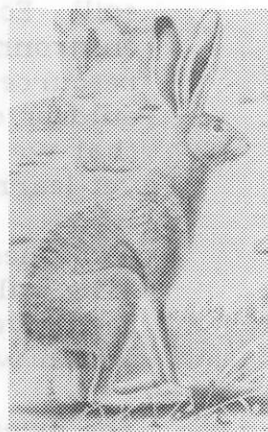
Most of the plants growing in this dry zone have very small leaves to reduce transpiration (water loss) and grow at some distance from each other so as not to compete for the little available water. Greasewood (*Furshia tridentata*) is the characteristic shrub of this zone. Its hairy leaves which roll inward during the most scorching weather are highly adapted and its woody stems contain nutritious oils, which are favoured by wild and domestic animals. Other characteristic shrubs are Rabbitbush (*Chrysothamnus naueous*), and Sage-brush. While looking for such beautiful and distinctive flowers such as: evening primrose, bitter-root, Mariposa lilies, yellow bell, tufted phlox, or balsam-root, one must be careful not to step on the brittle cactus! One of the grassland communities; the sand dropseed - red three-awned grassland is one of the most restricted grassland types in British Columbia.

Mammals

The mammals that inhabit this dry zone also form a characteristic assemblage in B.C. Pallid bats, Small-footed bats, the Western Harvest mouse, and Lord's pocket mouse are found in the Osoyoos-Arid zone only. The White-tailed jack-rabbit is now quite rare, and the badger has disappeared from this habitat.

Birds

The Osoyoos-Arid zone is home to both rare and endangered birds. The Canyon Wren is a tiny bird with a long descending call that echos from its cliff nesting habitat. It, the Sage Thrasher, and Brewer's sparrow are only found here in Canada. Say's phoebes, Western kingbirds, Violet-green Swallows and Magpies are more common. Burrowing owls are now trying to make a comeback in this area with help from Habitat Conservation projects.



Reptiles and Amphibians

The unusual desert adapted herpetiles of this zone include: the Short-horned Lizard, the Western Skink, the Tiger Salamander, and the Great-basin Spadefoot Toad. The much persecuted rattlesnake lives in rocky dens.

Insects and other small creatures

The most notable desert invertebrates are scorpions, wind-spiders and a native mantid. Dr. Scudder of U.B.C. has made extensive entomological studies of this area and says the species diversity is impressive. He has found unique grasshoppers, scarab beetles, butterflies, ant-ions, tiger-beetles, oribatid mites and many other obscure insect species.

The Osoyoos Arid Biotic Area is a distinctive ecological area found nowhere else in Canada. It supports populations of plants and animals that are at the periphery of their normal range. Most of a specie's adaptive evolution occurs at the periphery of it's range. Therefore areas such as this 'pocket desert' are important for scientists who study the processes of environmental adjustment, natural selection, and evolution in action.

However, due to its amenable climate, the Osoyoos-Arid zone has come under great pressure from ranches, orchards, vineyards, residential sub-divisions, and irrigation projects. It is only through the hard and persistant efforts of people in the Okanagan Similkameen Parks Society,

What is the new "System plan" for the Ecological Reserves Program?

A group of resource consultants including zoologist; Don Blood, botanist; George Douglas, parks planner; Ken Youds and terrain specialist; Mark Walmsley has been contracted by the Ecological Reserves Unit to tackle the project of compiling a Systems Plan for Ecological Reserves in British Columbia. The Systems Plan will be an "action plan that will allow the Reserves staff to systematically select, designate, and manage Ecological Reserves in a manner that is consistent with the goals and objectives of the Ecological Reserves Act." Basically it is a paper that outlines what reserves are present, in what ecosystems, and defines the gaps in reserve representation around the province. It is the answer to the question posed by forest company representatives "How many reserves do you want anyway?". The Reserves staff and Friends are hoping that it will help clear the large backlog of Ecological Reserve Proposals awaiting approval by Cabinet.

This systems plan may sound like a simple task, but in reality, it is monumental. The first task is to consider the Ecological Reserves Act, determine the types of reserves required, their possible locations, land status, and relationship to other types of legislation. The second task is to determine the range of natural features which should be included in a complete system of Ecological Reserves, then organize these in a classification scheme. At present, reserves are either representative samples of ecosystems based on V.J. Krajina's Biogeoclimatic Classification, or are reserves protecting rare and endangered geological, botanical, or zoological features. This new plan would compile a list for:

1. representative communities, both on land and aquatic communities (marine, estuary, stream, lakes, and ponds etc.).
2. rare and endangered species and habitats
3. outstanding and unique ecosystems
4. special geological landforms and soil features

After this, the consultants will determine which type of data is necessary to document new Ecological Reserve Proposals, then determine priorities for selection, evaluation and designation of Ecological Reserves. based on the above ecological features, system needs and socio-economic considerations.

For more information on this plan, please contact the Ecological Reserves Unit in Victoria.

THE PROVINCE'S KHUTZEYMATEEN STUDY

In response to Friends efforts to save the Khutzeymateen and a great deal of public pressure, in May 1988 the Minister of the Environment announced three-year study in the Khutzeymateen. The stated objective of the study is to assess the options of full scale logging, restricted logging, or no logging and their impact on the valley's grizzly population.

Last July, the study was organized and headed up by a Steering Committee that will recommend a plan for the future use of the Khutzeymateen based on the study results.

There are four sub-committees investigating various aspects of the Khutzeymateen:

- Forest Economics
- Grizzly Bear Research
- Fishery, Archeology, Minerals, Recreation Resources
- Benefit-Cost Analysis

Preliminary work has already begun. John Nagy will be heading up the bear research. He has worked on grizzly bear research in the N.W.T., in Swan Hills, Alberta, and in the Rocky Mountains of Alberta and Montana. He will be trapping and radio-collaring bears to determine bear's seasonal movements, habitat use, denning areas, and population parameters.

Dr. Jim Pojar (formerly of Ecological Reserves) will be mapping the vegetation communities. The vegetation map will then be used to derive a bear habitat map. From this data they will try to make predictions on the impact of logging on the grizzly bear's habitat.

Ray Weir has begun mapping the terrain from air photos. This will identify areas prone to landslides and surface erosion.



concerned individuals such as Pam Field, Douglas Fraser, Mrs. Driver, and the co-ordination of the Fish and Wildlife Branch with the Ecological Reserves Unit that any of this unique ecosystem was set aside.

Field's Lease Ecological Reserve

Mrs. Pam Field set aside and fenced 10 acres of land leased to her from the Southern Okanagan Land Project long before the Ecological Reserve Program existed. When Dr. Krajina visited the area in 1972, and saw its ecological merit, Field's Lease was quickly incorporated into the fledgling Ecological Reserve program.

Hayne's Lease Ecological Reserve

Hayne's Lease, at the head of Osoyoos Lake took fourteen years of lobbying by the Okanagan Similkameen Parks society to be incorporated into an Ecological Reserve in December, 1980. This 101 hectare reserve contains Okanagan River floodplain, gently sloping terraces, and part of the steep slopes of Throne Mtn. Although the terraces have been heavily grazed in the past, this reserve probably has more rare plants, vertebrates, and invertebrates than any other ecological reserve in the province.

With fenceposts and wire provided by the Ecological Reserves Unit, the Okanagan Similkameen Parks Society, the South Okanagan Naturalist Club, and the Oliver-Osoyoos Naturalist Club put up boundary fences to protect this reserve from cattle grazing. Joan and Harold King are the able Wardens of this important reserve. Free from grazing, the reserve will return to its natural state. Hayne's Lease is a living museum.

TRIAL ISLANDS ECOLOGICAL RESERVE PROPOSAL

From recent reports there is progress towards the creation of Trial Islands Ecological Reserve.

The two Trial Islands are situated just south of Victoria. They are separated from Oak Bay Municipality by the one kilometer tide swept Enterprise channel. Trial Islands were proposed as an Ecological Reserve in March 1981. It was felt that permanent protection was warranted due to their unique botanical attributes. The Trial Islands have the greatest concentration of rare and endangered plant species in B.C. With these attributes, one wonders why protection has taken so long, but there has been many difficulties.

Land tenure seems to have been the main problem. Although the land is Provincial Crown Land (which is necessary for any land to become an Ecological Reserve), the islands were part of Oak Bay Municipality's jurisdiction. Oak Bay wished to retain jurisdiction over Trial Islands pending a decision over a sewage treatment plant proposal. The islands were also designated a reserve for the Department of National Defence and a lighthouse has occupied the south side of the larger island since 1906. In addition a commercial radio station has a lease for transmission towers.

These difficulties seem to have mostly been sorted out (to the credit of all concerned). However, the main hurdle to overcome seems to be the Department of National Defence's unwillingness to withdraw the Military Reserve. Numerous letters have gone back and forth.

Over the past eight years the Friends have organized several field trips to the Trial Islands. Participants found the trips very informative, enjoyable, and were convinced of the importance of this Ecological Reserve Proposal. A visit to the islands when the islands are in full bloom is quite an experience.

Some people are under the mistaken impression that the creation of an Ecological Reserve would prohibit visits to the Trial Islands. This is not so. The Ecological Reserves Act specifically states that all reserves (except very fragile and sensitive reserves such as sea-bird colonies) are open to the public for activities such as picnicing, bird-watching, casual observation etc. Of course, activities such as hunting, fire-making, and destruction of life are not permitted in Ecological Reserves. The creation of Trial Island Ecological Reserve will assure protection of its genetic diversity, and encourage scientific and educational study.

- Wilf Medd



OIL SPILL ON THE WEST COAST!

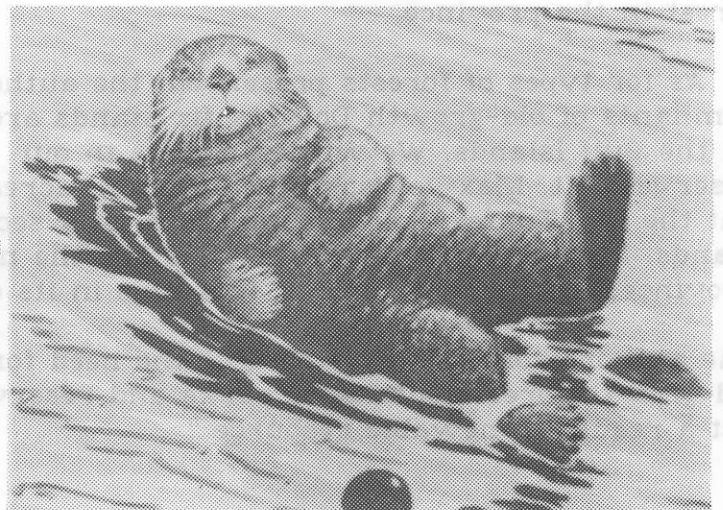
On January 3, 1989 oil from a sinking barge off Washington began washing up on Vancouver Island's southwest coast. At first it came in like thick gooey patties, splattered across the beach. Loons, auklets, murres, cormorants, and many other diving sea-birds washed ashore in almost indistinguishable globs of tar. Later, the oil came in as slicks or small globlets covering logs, rocks, and whole sections of beach. The oil-spill that we have dreaded for years, but hoped would never happen was coming ashore on our west coast doorstep.

I went out to help with the clean-up on the week-end of January 9th. As usual, the surf, sea-air, and rugged landscape of Pacific Rim took one's breath away with its wildness and grandeur. However, close inspection of the beach with patches of oil interspersed and spread over logs, near streams, and washing in with every tide was positively frightening.

What was happening to the sea-birds wintering off the west coast? What about the grey whales that migrate and feed off the bottom of Long Beach? Would the oil spill reach the most vulnerable of all creatures, the sea otter? What about all the inter-tidal animals and plants?

Only time will tell us the true impact of this "minor spill". Surely it has affected everyone and every living thing on the west coast in some way. If only it opens our eyes to the dangers of offshore oil drilling, the need for a comprehensive contingency plan, and the dangers of tanker traffic off our stormy shores, then maybe this oilspill is a lesson to be learned from. Oil and water don't mix! Keep the federal and provincial moratorium on offshore oil exploration in place!

Oil in Ecological Reserves



The oilspill impacted every Ecological Reserve on the west coast of Vancouver Island, including Baeria Rocks, Clelland Island, Checleset Bay, Solander Island, Sartine Island, Beresford Island, and Triangle Island. These reserves were set aside to protect sea-bird colonies and it is fortunate that the spill did not occur during the breeding season, but estimates of birds killed ranges from 30,000 to 100,000. This will significantly affect our sea-bird populations, especially Common Murres (estimated that 17,000 were killed) which are particularly vulnerable to oil.

Jane Watson was at the Checleset Bay sea otter colony where they found a dead oiled female sea otter. Oil had washed up on many of the reefs and islands which the sea otters raft up in winter. Battle Bay, Gull Island, the Acous Peninsula, and the Bunsby Islands were among the areas significantly affected. It is not known as yet if there was more sea otter mortality due to the spill. Jane is putting in funding requests to do another population survey this year.

The Ministry of Forests will also be evaluating the timber volume and value in the Khutzeymateen. It will be interesting to see this data and compare it with our contractor's estimate of operable timber in the Khutzeymateen. We believe there is far less merchantable timber in the valley than industry or Forest Service estimated in the past.

We are pleased that the Province has undertaken this research and will be very interested in the results. Our own research has pointed out the extremely high values of the Khutzeymateen ecosystem with its unique combination of wildlife, salmon, estuarine, and old-growth forest values. We believe the Khutzeymateen deserves protection in its own right. Grizzly bears are rapidly declining over their range in North America. The grizzlies of the Khutzeymateen need a safe home. Please continue to write to the Minister of Environment letting him know you care about the bears of the Khutzeymateen! Every letter counts.

Review:

Protected Old-Growth Forests in British Columbia: a paper written and researched by Hans Roemer, Jim Pojar, and Kerry Joy

Protected Old-Growth Forests in British Columbia appeared in The July 1988 issue of the Natural Areas Journal. Hans, Jim, and Kerry examined air photos, satellite images, and forest cover maps of 51 Ecological Reserves, 108 Provincial Parks, and 2 National Parks in coastal British Columbia. They were looking for areas of trees at least 150 years old and over 30 m tall. They found that 185,600 ha. of old-growth forest was protected in B.C. Total acreage logged in one year is greater than the total of old-growth protected in B.C. In other words, at the current rate of cut, all of the protected old-growth forest in B.C. could be logged in less than one year!

The largest area of protected forest lies in Strathcona Provincial Park (47,600 ha), followed by the South Moresby National Park Reserve (33,500 ha.), and Tweedsmuir Provincial Park (26,000 ha.). The Krajina Reserve has the largest protected area of old-growth in an Ecological Reserve (2120 ha.), and Ecological Reserves contain only 3% of the protected old-growth forest in the province.

As for types of forests preserved, the authors conclude that only small remnants of old-growth Douglas-fir stands are found in parks and reserves on the Gulf Islands. We witnessed this in our fall trips to the Gulf Island reserves. Mt. Maxwell contained a small acreage of impressive Douglas fir, but the Mt. Tuam reserve contains mostly second-growth Douglas fir stands. Douglas fir-red cedar stands are the most productive in the province, yet there is little of this type in its old-growth form.

The authors conclude by stressing the need for inventory and protection of old-growth forests outside of parks and reserves. "Old-growth forests are not a readily renewable resource."



FOR RENT: ROOM WITH A VIEW

The Friends would like to share our office (Room 420, Central Building , View St., Victoria) with a suitable person or association. We use the office sporadically for mailing, meetings, and working. We have chairs, tables, and bookshelves, for working. There is a nice big window. The rental would be only \$100.00 per month. Please contact Vicky at 478-0388 or leave a message on the office answering machine.

FALL FIELD TRIP REPORTS

SALTSPRING ISLAND

On October 30th the Friends went on a field trip to Saltspring Island. We were met by Bob Andrew and Paul Linton, then taken to Mt. Tuam Ecological Reserve at the south end of Saltspring. We hiked up an old trail to an area of logging at the border of the reserve. The former warden told us that a road was almost put through the reserve by Murray Cypress (the logger). Fortunately the warden and concerned citizens were on the alert and raised alarm over the road.



Earth-star fungus



Geastrum Species



After lunch we were taken to Mt. Maxwell Ecological Reserve. This reserve is an open parkland of Douglas Fir and Garry Oaks which slope down to the sea. The gnarled old oaks were eerily beautiful in the late fall mist. Gwen found an interesting Earth-star fungus. Some fencing of the wild flower areas has been done to keep out feral sheep, but stronger fencing is probably required. One of Friends projects could be to raise money for this fence.

At the conclusion of the hike, we had a view through the clouds from the top of Mt. Maxwell, then returned to Fulford Harbour. We had a final get-together over tea, then caught the ferry home.

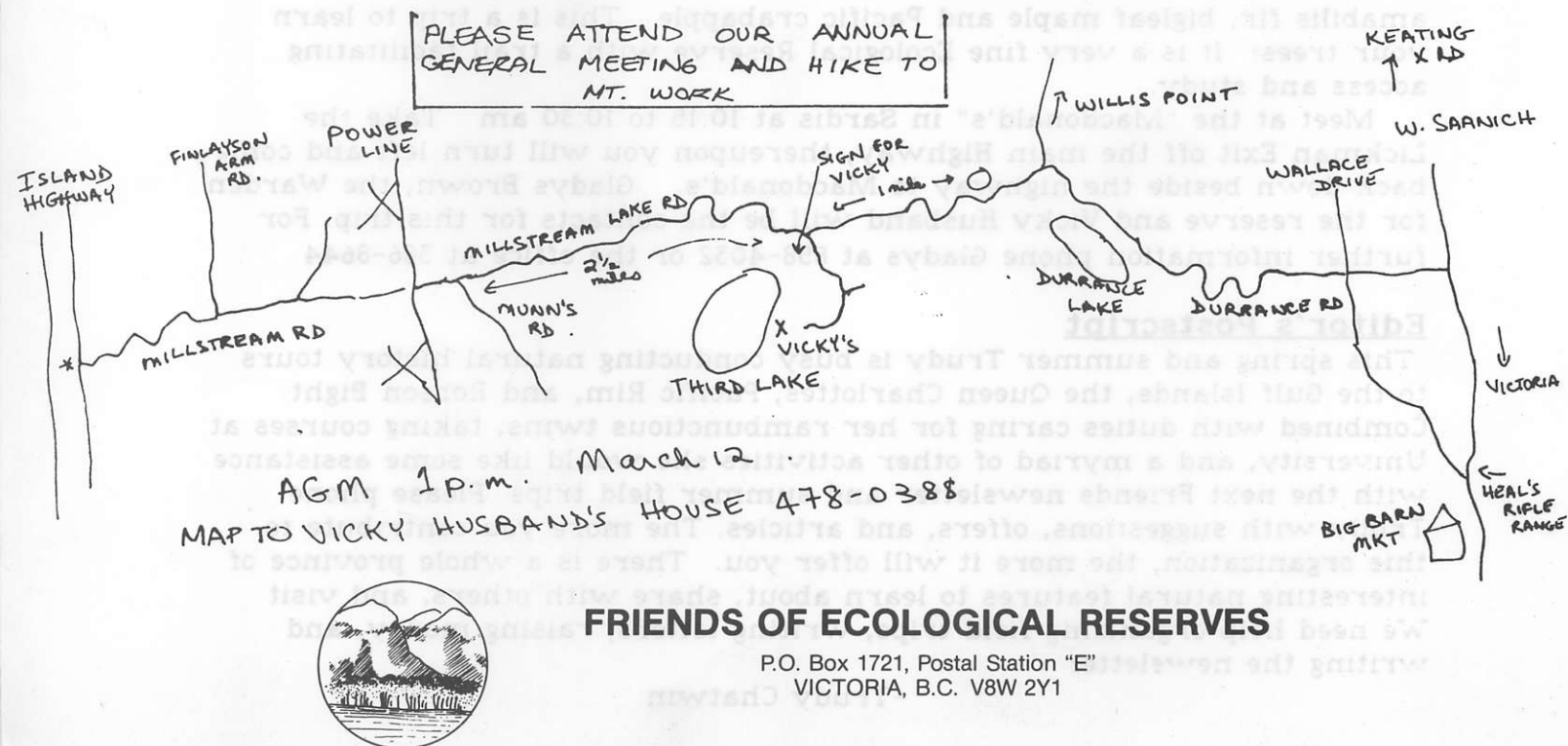
GALIANO ISLAND

On November 11th the Friends met on Galiano Island. Our first stop of interest was a rare quaking bog which was proposed to become an Ecological Reserve. Since it is close to settlement, it is used by locals and this reserve proposal does not appear to be close to resolution.

The same might be true of the second area we visited. This is the Bodega Ridge, running down the centre of the island. A local resident, Dawn Christian took us to see and hike this rather unique ridge. The trail along the top has fantastic views of Trincomali Channel and many of the Gulf Islands. A noteworthy feature is the exceptionally large Manzanita bushes growing at the crest of the ridge. Dawn tells us that in spring when the herring are spawning, Bodega Ridge is a fantastic spot to watch hundreds of bald eagles perching in the Douglas firs. However, Bodega Ridge is owned by MacMillan Blodel and logging in the very near future threatens to spoil this area.

The third area, fortunately has been slated for a park. This is Coon Bay at the North end of Galiano. It was beautiful in a wild way when we visited it, with a storm pounding against the shore. We hiked around the north end, with two of us paying a visit to the lighthouse keeper at Forlier Pass. After all the hiking we were rewarded by a delicious dinner at the Pink Geranium Restaurant, then caught the 9:15 ferry home.

- Steve Ruttan



UPCOMING EVENTS

THE ANNUAL GENERAL MEETING: 10am Saturday, April 29, at Vicky Husband's house.

Spring at Vicky's house in the Highlands outside Victoria is flowers blooming, thrushes singing, sunshine sparkling on the lake, and lots of talk and activity regarding conservation.

Weather permitting, the day will begin at 10:00am with a hike to Mt Work. Bring something to contribute to the Pot-luck picnic lunch.

We will start the meeting at 2:00pm with the election of next years officers. We will discuss the plans, proposals, and budget for 1989. Your input will help us decide the direction of our organization. Please attend! A map is provided to help you find the house.

Carmanah Creek and the Giant Spruces: Sunday, April 30

Many people have expressed interest in visiting Carmanah Creek. We have decided to combine this field trip and the annual meeting to facilitate members from the mainland. This will be a day hike to the creek and the Big Spruce trail to experience this magnificent old-growth forest. Be sure to bring lunch, raingear, and gumboots. Phone Trudy Chatwin (592-3559) or the office (386-8644) for details.

Race Rocks Ecological Reserve: Sunday April 2, 10:00am

Join us on the annual foray to Victoria's most spectacular marine area. The Reserve Warden, Gary Fletcher has agreed to take us out to Race Rocks in the Pearson College boat. This is a very informative and interesting trip with a visit to the oldest lighthouse on our coast, views of the seals and sea lions hauled out on the rocks, oystercatchers staking out their nesting territories, and a chance to see, smell, and feel some of the under-water creatures living at Race Rocks. The cost of this trip is \$7.00 for members and \$15.00 for non-members. We are in the process of trying to raise money for continuing the underwater research at Race Rocks. The Marine Science Students at Pearson College desperately need an underwater camera to continue their monitoring of permanent plots in the Ecological Reserve. We would like to support this important research and need your help. Register for the trip by calling Trudy Chatwin at 592-3559.

Mt. Tzuhalem Ecological Reserve: Saturday, May 6

Mt. Tzuhalem near Duncan is renowned for its spectacular spring wild flowers. The Friends are joining Cowichan Valley Naturalists for a hike to this beautiful reserve. Friends contributed money for the partial fencing of this reserve, so we'll get a chance to see our funds in action. Meet at the Semenos Information Centre just north of Macdonald's in Duncan at 10:00 am. Phone Trudy at 592-3559 or Rebecca Finlay in Duncan at 748-8309.

Chilliwack River and the Katherine Tye Ecological Reserve, Sunday, April 23

Chilliwack Forest is an outstanding old-growth forest situated on the floodplain of the meandering Chilliwack River. It has exceptional diversity of tree species, including western red-cedar (up to 2.75 m diameter), western hemlock, Engelmann and Sitka spruce, Douglas, grand, and amabilis fir, bigleaf maple and Pacific crabapple. This is a trip to learn your trees! It is a very fine Ecological Reserve with a trail facilitating access and study.

Meet at the "Macdonald's" in Sardis at 10:15 to 10:30 am. Take the Lickman Exit off the main Highway, thereupon you will turn left and come back down beside the highway to Macdonald's. Gladys Brown, the Warden for the reserve and Vicky Husband will be the contacts for this trip. For further information phone Gladys at 858-4032 or the office at 386-8644.

Editor's Postscript

This spring and summer Trudy is busy conducting natural history tours to the Gulf Islands, the Queen Charlottes, Pacific Rim, and Robson Bight. Combined with duties caring for her rambunctious twins, taking courses at University, and a myriad of other activities she would like some assistance with the next Friends newsletter and summer field trips. Please phone Trudy with suggestions, offers, and articles. The more you contribute to this organization, the more it will offer you. There is a whole province of interesting natural features to learn about, share with others, and visit. We need help organizing field trips, writing letters, raising money, and writing the newsletter.

-Trudy Chatwin