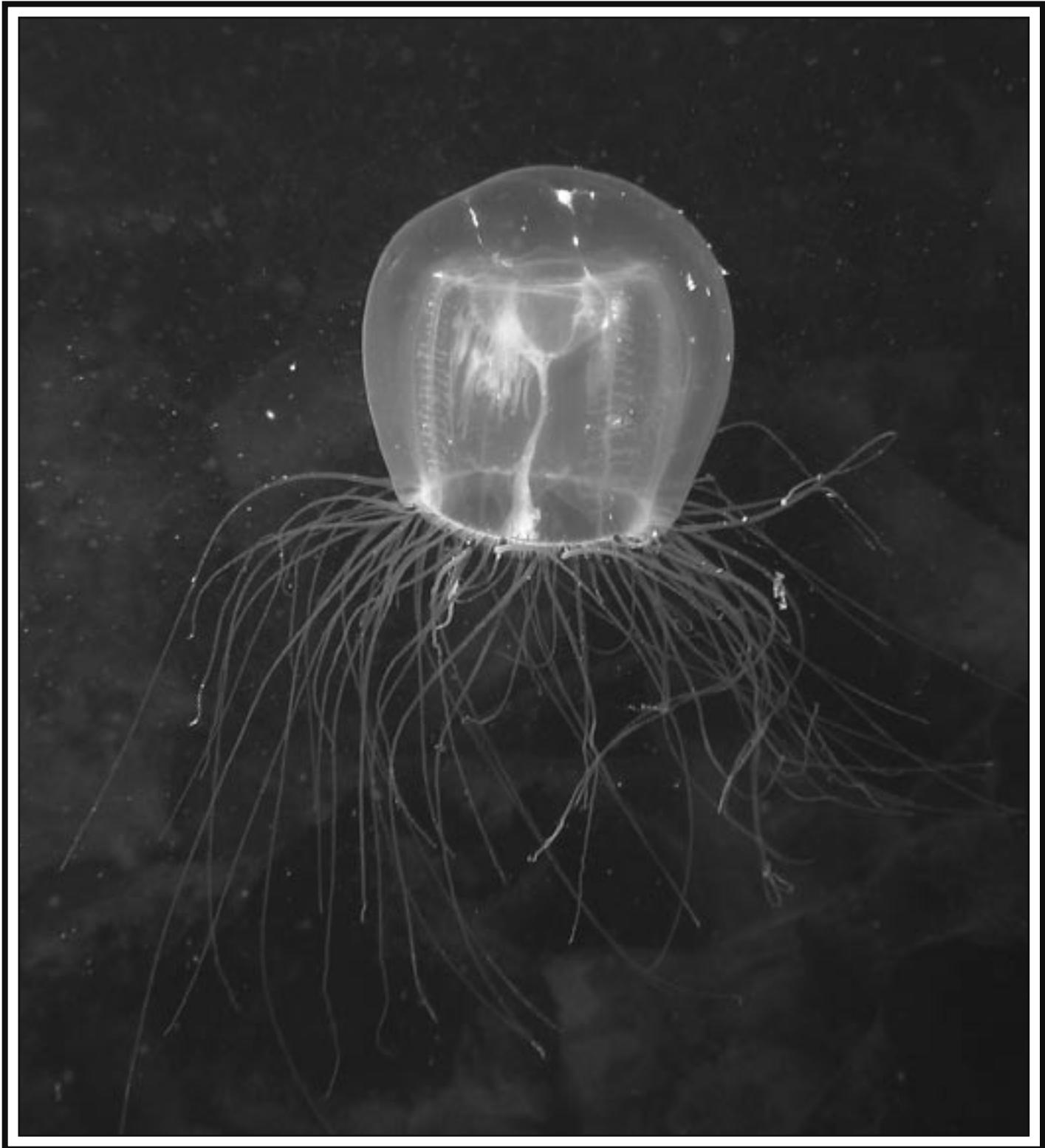


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COVER PHOTO: *Polyorchis penicillatus*, a hydro-medusa that spends a lot of time on or near the bottom in shallow water and feeds on benthic crustaceans. It occurs all the way from the Sea of Cortez to the Aleutians. Photo: Phil Lambert

I have always associated viewing B.C.'s snaggle-toothed landscape from 40,000 feet with adventure, since neither Darren nor I have family far away and we don't travel for work. My most recent viewing was no exception: we attended the Nature Canada conference in Wolfville, N.S.

We learned a lot about tides at the conference, as well as the potential, and potential impacts of tidal power as the province tries to tap into the Fundy extremes and reduce their dependency on coal. While we were away Canada's premiers met about climate change and actually admitted they accomplished nothing, and there was also a meeting of experts held here in Victoria discussing water issues in terms of climate change. And finally, in Calgary, heartland of Canada's fossil fuel economy, I bought an issue of a backpacking magazine dedicated to climate change. The facts and figures were dramatic (the U.S.'s Glacier National Park has only 27 of its original 150 glaciers, Everglades National Park will be lost entirely due to rising sea levels), and I was once again reminded how, this time last year, there was no snow visible on my favourite view of mountains – the Olympics.

At what cost, this "adventuring"?

Claudia

Speaking of cost – this issue of the magazine is printed on 100% post-consumer recycled paper for only a small increase in the printing cost. Combined with the vegetable-based inks and Fotoprint's adherence to CleanPrint BC's mandate, this is a significant improvement.

Margaret Jeal, a long time member of the Society, passed away in December of 2006. Those who knew her talk of her as being generous and easy-going, liked by all. She recognized the work of the Victoria Natural History Society through a bequest of more than \$4,000. The board has decided to apply this donation towards increasing our scholarship funds to help offset the increased tuition expenses students are experiencing.

Remembering Margaret Jeal

By Anne Knowles and Lyndis Davis

Margaret Jeal moved to Victoria after she retired from Bell Canada in Toronto in the mid 1970's and joined the VNHS shortly after she arrived. Margaret had many interests and generously shared her vast knowledge and love of birds, animals, plants and photography with her many friends. She attended Natural History meetings regularly and participated in the Christmas Bird count for many years. She was also an active member of the Rock and Alpine Society and was instrumental in starting their rock garden in Beacon Hill Park.

Margaret had a big circle of friends, a great sense of humour and was a good organiser. She arranged several natural history trips and also a walking group of ten to twelve people. She would lead us to different places in the area and up Island. The group was known as "The Rickety Ramblers". And she was a world traveller. She went throughout North and South America, Europe and the Himalayas and was interested in both cultural and natural history trips. Margaret was a great person to travel with and her love of life made every trip enjoyable.

She is fondly remembered by all those who knew her.

What follows is an article from the July 1987 issue of the Victoria Naturalist that Margaret and Lyndis co-authored.

The "Other" Skylark

By Lyndis Davis and Margaret Jeal

While hiking down from Rattlesnake Lake in the Okanagan, in an area of grass-covered slopes with well-spaced evergreens, we heard a very melodious warbling song that lasted for several minutes, stopped briefly, and then started again.

We eventually spotted the singer, a dark bird, Towhee size, with a pale stripe along the centre of the wings. He was about 25 feet up, flying into a fairly strong wind, almost holding station but every now and then being blown sideways or backwards and then returning to about the same spot. He was singing continually. It was thrilling – but what was this bird putting on this unexpected performance? It was hard to identify him against the sky.

Then he landed on the top-most branch of a fir and we got our glasses on him: a Townsend's Solitaire.

And he repeated the performance twice more while we watched. Such incidents make birding an "event", and keep us coming back for more.



The grand opening of the Viaduct Flats Viewing Platform held on August 10, 2007. This was a project initiated through a bequest from VNHS member Anne Adamson.

Photo: Shannon Berch

Connecting Children with Nature – VNHS Schools Project Update

By Bill Dancer

The spring and early summer 2007 School Project has definitely built on our 2006 successes.* The truth of this statement is born out by the fact that word of mouth about the program has spread from public schools to home schooling groups and the various levels of the scouting movement. The number of requests for return visits also reflects positively on the popularity of this initiative, and I can personally vouch that return trips indicate that the children involved have become more aware of the natural world around them. It was also pleasing to hear from both children and teachers that the books the Society distributed to local schools are being used and appreciated.

Of course I think, like myself, everyone that guides or speaks to children as part of this program also has a "feel good" experience and sometimes a good laugh, when, for example, explaining the "double-decker" butterfly they have just seen.

In all, spring 2007 involved 18 trips, of which 15 were guided tours of nearby parks or green spaces and three were talks. Children were two thirds grade 1 through 3 and one third grades 4 through 6. Public schools accounted for 13 requests, the scouting movement had three requests, and home schooling groups had two requests. All but one request were fulfilled and the remaining one will be undertaken this fall due to in-school priorities.

The types of subject matter were quite varied and included eight requests for walks to cover all aspects of nature: two each for plants, bugs, and birds and the intertidal world and one each for local geology, birds, how to safely conduct an intertidal exploration, and insects.

There were learning lessons for all concerned which we will put into practice when responding to fall requests. One very important lesson learned is that the binoculars, field guides, etc. stored at Swan Lake are not being used that much. This is a pity because I have used them on several occasions and they are really helpful items to take on a field trip. All that is involved is to fill out the necessary forms at the reception desk when you take them out and return them in a timely fashion.

Lastly: "thank-you" to all those volunteers who undertook responding to the requests. I know from the feedback I have received that these trips are greatly appreciated both by the teachers and the children.

*For a quick summary of 2006 check out the Bulletin Board (p. 19).



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Last Child In The Woods: Saving Our Children From Nature Deficit Disorder

By Richard Louv

Book review by Joy Finlay

Lt took me a long time to read this book. I kept spinning off to reflect and peruse not only on the development for a strong base in my own affinity with nature but also the many tough questions of life and living in this time full of industrious and ignorant disregard for the integrity of the natural systems that sustain us. Louv is a new messenger, as was Rachel Carson and her “Sense of Wonder”. In this book the message is urgent. Louv explores expansive insights from his research and he offers practical solutions.

He affirms the role of parents, teachers and planners; that they must be mindful of not overlooking the importance of natural experience for learning and child development, an essential for physical and emotional health.

Louv brings together a wide base of research that shows the need for nature in the lives of today’s wired generation. He links the lack of non-directed creative exposure to nature to many disorders (ex. obesity, attention disorder, depression). He introduces the term Nature Deficit Disorder



Joy's granddaughter Annika has just made a broom flower pop when stimulated (like a bee landing on the lip); the anthers pop out with pollen to pollinate the bee, which in turn carries pollen to the next blossom. Photo: Cam Finlay

“Nature – the sublime, the harsh, and the beautiful – offers something that the street or gated community or computer game cannot. Nature presents the young with something so much greater than they are”. —RICHARD LOUV

followed by a chapter that addresses the restorative value of nature for Attention Deficit syndrome. Nature’s Ritalin. Also a study of patients recovering from surgery showed those patients in a room overlooking a grove of trees recovered faster than those in a room facing a brick wall.

From my own childhood I know the calming effect of having a tree to climb. It was a birch tree on the side of a hill. When I looked out and beyond through a veil of catkins, or green leaves, or branches with sleeping buds, I felt I was just a little piece of the landscape and any troubles I might have were significantly belittled. I thought the idea was original! But after reading Louv’s book I know that is exactly the kind of place every child needs.

As I read through the book, I kept ‘illustrating’ the book with pictures from my mind. Yesterday I was ecstatic after a walk above the beach at the foot of Beacon Hill. A grandmother, pushing a stroller and accompanied by a happy little granddaughter, passed by on the trail. The child was carrying a small piece of wood in each clenched hand, probably broken pieces of branches from the winter storms found along the way. She was beaming and looked to me for sharing her joy in discovering these wonder-filled bits of tree debris. I’m sure my response was as gleeful as hers, and I have been beaming ever since. I would put these ‘photo illustrations’ on page 97 when Louv states “Nature – the sublime, the harsh, and the beautiful – offers something that the street or gated community or computer game cannot. Nature presents the young with something so much greater than they are”. And it is more than a leisure activity; it is an essential for wellness, a prescription for good health at all ages.

In the early chapters Louv delves into the wide-ranging value of direct experience in nature, then into the hurdles (time, pressure, fear, arterial traffic and urban patterns, litigation, education, organized activities). “The death of natural history” results from a lack of nature education in schools. Later chapters address “The broken bond with nature” and practical solutions for a “nature-child reunion”, a call for help from parents, schools, nature organizations, city planners, and everyone. (I’ll include grandparents too). The possibilities are exciting and uplifting, a ‘fourth frontier’, a movement for renewing our attachment to the land. We see trends (for example Smart Growth) and there is reason for optimism. The book is a wake-up call, not a lament for the good old days.

When Richard Louv spoke in Victoria to a packed audience, he autographed my book with “Leave no child inside”. At the same time I had two messages on my desk to call back to teachers for a grade 3, the other for middle school, both a response to our VNHS *Connecting Children with Nature* program. Aha! We are part of a nature child reunion effort too. We all can keep connected with www.naturechildreunion.ca, the website set up locally after the workshop following Louv’s talk.

With the excitement of the present annual reunion with things of spring, I cannot resist; I must share one more pleasurable piece of evidence that, especially with younger children, it may be the kids that can show us how to keep connected in nature too. On Easter Sunday, we had an afternoon all generations family walk around Montague Harbour on Galiano Island, in the rain. Annika, just 7 years old, and I found one Arbutus in bloom. We picked up a fallen blossom on the beach and marveled at the ‘solar panels’ around its base. Annika carried the tiny blossom all the way. After dinner she called us all together for her important announcement; she still had the one blossom to show us and invite answers to the question of its purpose. I won’t ask, but how many of you have seen these ‘windows’ before; it was a first for all of the family gathered. You can bet there will be some “direct experience with nature” going on under blossoming arbutus trees, spawned by a 7 year old who plugs into nature as easily as she does computers.

Last Child in the Woods is written and published in and about the USA. Many in Canada are at present not so far removed from the land. We may count our blessings while being forewarned of where we are going.

Educators interested in this topic may also appreciate another recently released resource:

New Field Guide for Educators: No Student Left Indoors
By Jane Kirkland, author and publisher of the award-winning Take A Walk® series of nature adventure books. No Student Left Indoors: Creating a Field Guide to Your Schoolyard, is a guide for K-8 grade teachers to create an interdisciplinary nature-study in any schoolyard. Stillwater Publishing, June 2007. <http://www.takeawalk.com>

Break a Leg! and Other Brittle Star Behaviours

By Philip Lambert, Curator of Invertebrates, Royal British Columbia Museum

The oily smooth water barely made a sound in the early morning mist and the exposed barnacles hissed and popped around me. A blue heron honked its displeasure at being disturbed from its vigil on the edge of an eel grass bed, as I floundered around on the seaweed-covered rocks at the water's edge looking for a likely boulder to roll. Grasping a likely candidate, I heaved at it, shredding the ends of my fingers on the sharp barnacles and reminding myself again to wear gloves next time. I was on the hunt for some specimens of the common Daisy Brittle Star. I say 'common,' but it is surprising how many people have not seen one. You have to work a bit to find one. This boulder was set on clean shell sand with a strong flow of water around it during high tide. I disturbed the usual scurry of shore crabs and a couple of gunnels flapped around in protest, but then I spied a red snaky creature plastered on the underside of the rock. Aha! Got one! This species of brittle star, *Ophiopholis kennerlyi*, comes in all sorts of colour varieties and under a dissecting microscope is incredibly beautiful. OK, OK! So I am biased, but the intricate series of plates and spines on the disc will remind you of mosaic tiles!

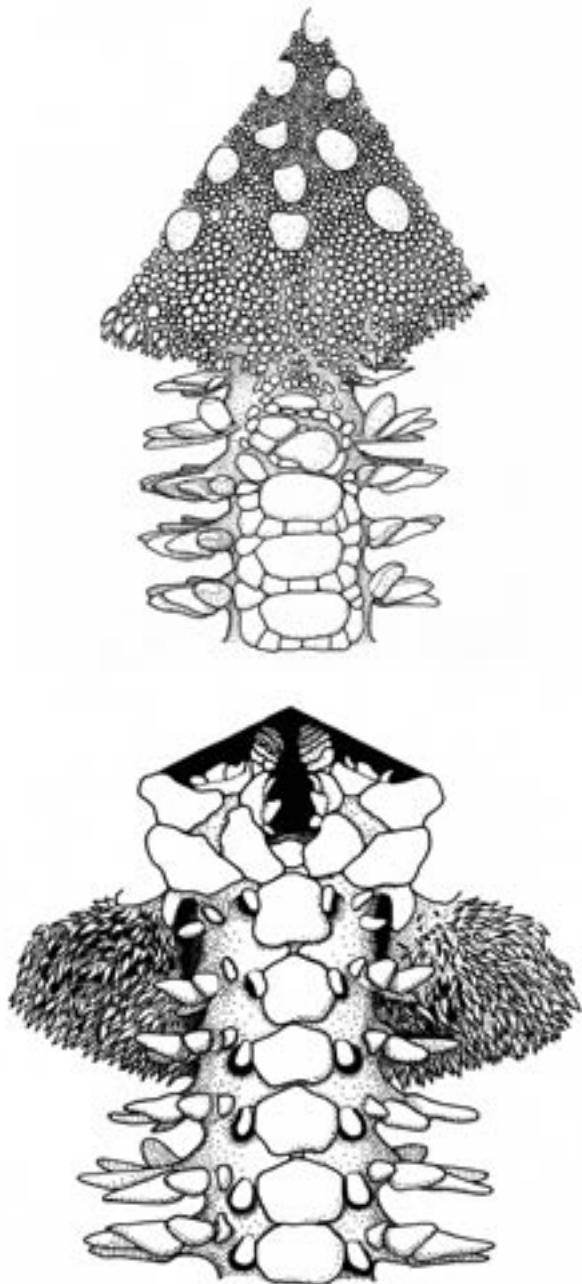
In the fertile waters of British Columbia and Southeast Alaska we have documented twenty four species of brittle stars in shallow waters (< 200 metres). Many of them only live in soft sediment below the low tide, but at least ten species have been collected at low tide. Most of them feed on particulate matter that they snare from the passing water with their sticky tube feet. Then the bolus of food is passed toward the mouth, situated on the underside of the disk. The Basket Star, with a disc diameter of about 5 cm, is perhaps the most glamorous of the brittle stars. It sits out in the open in high current areas and puts up a veritable radar-dish of tentacles, facing into the current. Hooks on the arms snare unsuspecting planktonic crustaceans, which are then rolled in mucus and transferred to the mouth. Other species with a nickel-sized disc burrow into the sand or mud but extend their arms up out of the sediment and catch floating particles. Scuba divers are probably more familiar with brittle stars. Along the Victoria Breakwater for example, some populations of brittle stars form a carpet of tentacles protruding from beneath the rock rubble. Some areas on the continental shelf support hundreds of individuals per square metre, their arms touching or even overlapping.

Brittle stars differ from sea stars by having the arms set off from the central disc. None of the internal organs of the disc have branches into the arms like sea stars. The arms consist of separate calcareous segments that articulate with the adjoining ones and allow the arm to bend laterally. The mobile brittle star uses its arms in a rowing motion to



Top: Colour forms of the Daisy Brittle Star found under one rock near Sitka, Alaska. Bottom: Daisy Brittle Star – *Ophiopholis kennerlyi*. Photos: Philip Lambert

move across the substrate. On the underside, the mouth and associated plates and teeth occupy the centre of the disc. The mouth leads into an esophagus, then into a large stomach, which occupies most of the disc. The animal has no intestine or anus. Undigested food is regurgitated. Like sea stars, brittle stars have a water ring around the mouth and radial branches out each arm connecting to tentacles in each arm segment. These correspond to the tube feet of sea stars but



Details of the Daisy Brittle Star showing a segment of the disc and a leg. Top = dorsal view; bottom = ventral view. Drawings: Phil Lambert

do not have suction cups at the tip. These tentacles are very adept at passing a bolus of food from one to the other and eventually reaching the mouth.

So how do baby brittle stars come into this world you may ask? Reproduction is pretty basic, with sets of gonads in the disc at the base of each arm that discharge their products into sacs, then out through a genital slit on each side. The sperm or eggs discharge from these slits and the adult will often raise its body up into the current to facilitate this release. Fertilization takes place in open water and the developing embryos are planktonic for three to thirteen weeks

before settling to the bottom and taking residence. Of course there are exceptions, with a small number having both sexes (hermaphrodites) and those that brood their young in the genital sacs. These tend to be those that live in the Arctic or Antarctic waters, where food supplies are not as predictable.

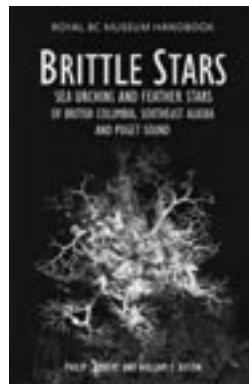
As the name brittle star implies, these animals lose legs at the slightest provocation from a predator or due to rough handling. It's a kind of escape behaviour reminiscent of the lizard that drops its tail. With their great powers of regeneration brittle star arms can re-grow at a rate of 2.3 mm per month. Some species use bioluminescence as a way of repelling predators. The arm joints produce a yellowish fluid that flashes and glows and causes fish and crustaceans to retreat. In some habitats they can be the dominant invertebrates. Being so numerous is a type of defence as well, so that when fish like halibut and skates or large crabs devour them, some will always escape to reproduce their kind. So, despite their diminutive size, they are no pushovers in the marine world and are an important component of the food chain. For more information about specific brittle stars, consult the newly published reference below.

Reference

Lambert, P. and W.C. Austin. 2007. *Brittle Stars, Sea Urchins and Feather Stars of British Columbia, Southeast Alaska and Puget Sound*. Royal BC Museum, Victoria.

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'Groceries' and the Changing Status of the Black Oystercatcher in the Strait of Georgia

By Bill Merilees

The seminal 1947 Munro and Cowan publication, *A Review of the Bird Fauna of British Columbia* had this to say about the Black Oystercatcher: "A resident on, or summer visitant to, the rocky outside coast and islets". Two specimen records, one for Howe Sound (summer 1889), the other at Active Pass (winter 1888) are the only Strait of Georgia data cited. *Birds of B.C. (Vol. 2)* states that seasonal movements of the Black Oystercatcher are not well known, though there seems to be a general dispersal from outer exposed coasts to more sheltered areas such as Juan de Fuca Strait.

Compare the above comments to the results of the recent *Coastal Waterbird Survey (1999-2004)*, where most sites surveyed in the Strait of Georgia recorded oystercatchers during November to January. The highest number recorded during these surveys was sixty five by Neil Bourne, at Departure Bay, Nanaimo. This apparent and remarkable observation is further documented by information recorded at Mitlenatch Island (Van Tets, 1963, Campbell, 1964,

Thomson and Sowden, 1980); the Nanaimo Christmas Bird Counts (1964 to 2004); other surveys within the Strait of Georgia (Campbell, 1968, Vermeer *et al.* 1989) and for the Vancouver Bird Checklist Area.

Selected Black Oystercatchers Observations 'then and now', Strait of Georgia

Winter Counts:

Nanaimo Christmas Bird Counts*

- 1964-1968 8 birds on 5 counts
- 1982-1986 85 birds on 5 counts
- 2000-2004 475 birds on 5 counts

* Note: In addition to the number of oystercatchers recorded, the number of participants (i.e. effort) also increased substantially, likely accounting for a considerable portion of this documented increase)



Photo: Ralph Hocken

Summer counts:

Mitlenatch Island Provincial Park

- 1963-1964 1 nesting pair
- 1980 7 nesting pairs

Vancouver Bird Checklist Area

- 1962 not listed
- 1988 edition listed as rare breeding resident
- 2004 edition listed as uncommon breeding resident

Strait of Georgia Surveys

- <1977 20-22 pairs nesting (estimated at about 50% of total population i.e. 40-44 pairs)
- 1987 67 nesting pairs

From these observations it would be reasonable to suggest the Black Oystercatcher population has been undergoing a decided increase in both breeding and wintering populations within the Strait of Georgia. To an enquiring mind the next question must be why, followed by an assessment of what factors might be responsible. The answer is probably quite complex, being neither clear cut nor simple, with no single factor being totally responsible.

As a naturalist with an interest in marine molluscs, I can think of two events that might have contributed to this increase. I believe present oystercatcher numbers may reflect a dramatic increase in the availability of ‘groceries’, aka food resources. The first event I would suggest was the introduction of the Pacific Oyster for commercial purposes, and

the second would be the recent arrival of the Purple Mahogany-clam (aka Varnish or Savory clam). Within the Strait of Georgia, these two species have provided oystercatchers with a new, easily accessible, intertidal food resource, beginning about the late 1950’s.

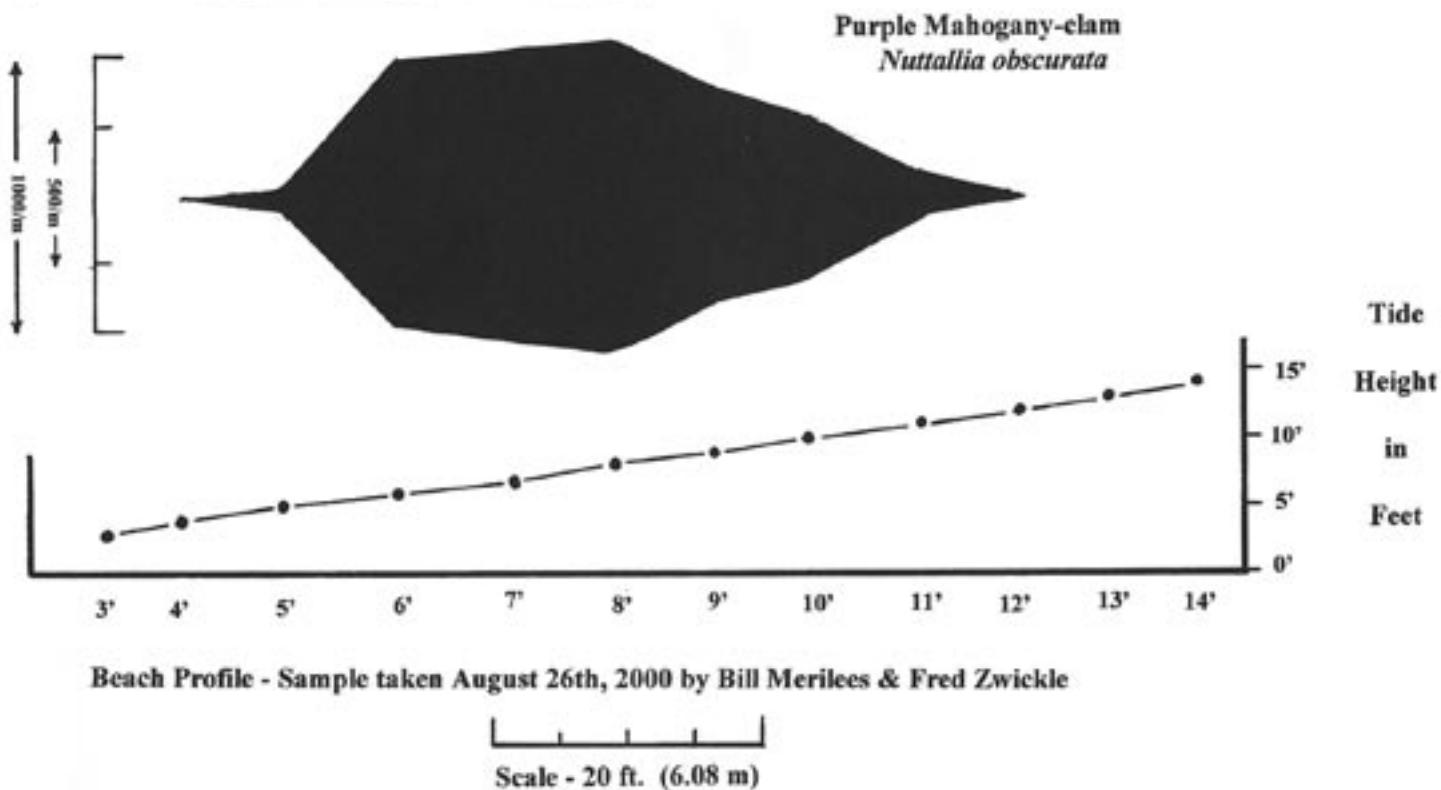
Studies of oystercatchers at Cleland Island, near Tofino identified preferred food items to include limpets, chitons, mussels, crabs and other arthropods, and nereid worms (Hartwick, 1973). These food sources are largely confined to rocky exposed coasts, not the gravel or sandy beaches found around the Strait of Georgia.

First introduced about 1912-13, the culture of the Pacific Oyster was maintained through the importation of seed from Japan until natural reproduction took over. The first really significant wild spawning of Pacific Oysters took place in 1958, after which the import of seed was discontinued in 1961 (Quayle & Smith, 1976). The accompanying photo, taken at Camp Bay, Mitlenatch Island in July, 1970, shows the result and intertidal extent from these early spawnings. This oyster bed extended between the 1m and 3m tide line. (Merilees, unpublished report). Until the early 1960’s, oysters, both native and introduced, were somewhat limited to relatively few locations in the Strait of Georgia.

In 1965 Wayne Campbell, park naturalist at Mitlenatch, first observed Black Oystercatchers feeding on Pacific Oysters (Campbell, 1966). By 1978 this was found to be a frequent practice and was further documented by Butler and Kirbyson (1981). They reported that oystercatchers could consume up to nine oysters in one hour.



The 1970 extent of the Pacific Oyster beds at Mitlenatch Island following the 1958 and subsequent spawnings.
Photo: Bill Merilees



Intertidal Distribution and Numbers per Square Metre of the Purple Mahogany Clam near Mason's Landing, Cortes Island, B.C.

Among the list of predators enumerated by Quayle and Smith (1976), oystercatchers were not included. Bourne (1987) stated that clam predation by oystercatchers was probably minor.

The Purple Mahogany-clam is believed to have arrived in British Columbia from Asia in the late 1980's, presumably via ballast water (Gillespie *et al.*, 1999). From the Strait of Georgia it spread rapidly into Puget Sound, south along the American coast to Oregon, and north along the west coast of Vancouver Island at least to Barclay and Clayoquot Sounds.

The intertidal distribution of this species has been determined at Manson's Landing, Cortes Island and at Departure Bay in Nanaimo (Merilees and Zwickle, unpublished) (see above figure). At approximately the 8ft. (2.4 metre) tide level, densities of mahogany clams were found to exceed 1,200 individuals per square metre. Glaucous-winged Gulls, Northwestern Crows and Black Oystercatchers have all been observed eating this clam. At Lacarno Beach in Vancouver, June Ryder (in press) recorded Surf and White-winged Scoters feeding on Mahogany Clams. At Departure Bay Beach, oystercatchers have been observed to capture and process 1-2 small Purple Mahogany-clams per minute. Clams of up to 57 mm shell length were observed being pulled from

the substrate and eaten in Ladysmith Harbour (Rick Harbo, pers. comm.).

From the information presented here it would appear that the Black Oystercatcher has learned and perfected a number of techniques that have allowed it to take advantage of these new food resources. As a result, oystercatchers not only appear to have increased their summer and winter populations in the Strait of Georgia, but it is likely they are now able to forage in habitats that previously were unable to provide them with the sustenance they required.

This article is a very brief overview and interpretation of some observations that seem to suggest that an increased food resource, brought about by the introduction of a couple of bivalve species, may be one reason why the Black Oystercatcher population in the Strait of Georgia is increasing. No doubt this question is more complicated than outlined here. To really understand and to do this question justice could be a worthwhile challenge for a keen, field oriented, graduate student.

I would like to thank Neil Bourne, Neil Dawe and David Stirling for their comments and suggestions on the early draft of this article. I would also like to thank Ralph Hocken for the use of his photograph.

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Bird Inventory Surveys in the Blenkinsop Valley

By John Henigman

Bird surveys were conducted by volunteers of the Victoria Natural History Society in the Blenkinsop Valley along the Lochside Trail from April 23, 2005 to April 15, 2006. The surveys were conducted weekly, normally every Saturday morning, starting at 7:30 AM for about two and a half hours. A total of fifty four surveys were completed. This survey was undertaken to attempt to determine if past changes to the area, such as the development of the Lochside Trail, construction of the Blenkinsop Lake bridge, and use of the Trail by the public, had caused changes to bird populations using the Blenkinsop Valley.

Volunteers conducted the survey by walking along the trail from north to south, watching and listening for birds. The survey started from the intersection of the Lochside Trail (Lochside Drive) and Lohbrunner Rd. E., and ended at the paved portion of Lochside Drive at the Don Mann Excavations Ltd property, and adjacent to Nicholson St. The yearlong weekly surveys were conducted in two portions, North and South. The North portion of the survey runs from the Lohbrunner Rd. intersection south to the south shore of Blenkinsop Lake (part way over the bridge), a distance of 1100 m. The South portion of the survey runs from the south shore of Blenkinsop Lake (on the bridge) south to the paved Lochside Dr, a distance of 725 m.

The North Portion includes all locations where sightings are possible of Blenkinsop Lake. Most of the North Portion area is riparian habitat, and as well there are Garry oak meadows, grassy paddocks and agricultural fields. The South portion includes a marshy alder forest area, riparian vegetation hedgerows, backyards of residences on the western side of the Trail, agricultural fields, and hedgerows with mature cottonwood trees.

The following VNHS volunteers conducted the majority of the surveys: Bill Dancer, Cheryl Mackie, Chris Saunders, Donna Ross, and Rick Schortinghuis.

The results presented in the following are an overview of the results seen between the North and South Portions of the 2005-2006 survey, and between the 2005-2006 survey and similar survey completed in 2001-2002.

In the North Portion over the course of the year long survey period a total of 49,652 birds were tallied, representing 114 identified species:

Largest number of birds seen: 3030 individuals on December 24, 2005

Least number of birds seen: 182 individuals on April 27, 2005

Largest number of species tallied: 61 species on September 17, 2005



Bushtit: Photo: Marie O'Shaughnessy



Map of Lochside Trail through the Blenkinsop Lake area showing the North South bird survey portions of the Trail.

Least number of species tallied: 32 species on February 4, 2006

In the South Portion over the course of the year long survey period a total of 19,004 birds were tallied representing 82 identified species:

Largest number of birds seen: 1781 individuals seen on November 12, 2005

Least number of birds seen: 45 individuals seen on May 7, 2005

Largest number of species seen: 29 species on November 29, 2005

Least number of species seen: 15 species seen on September 3, 2005

The species diversity and bird population of the North and South areas can be directly compared to show how habitat attracts different sorts of birds and how the areas support different numbers of birds. Applying a number of modifications of the year of survey data some interesting results emerge. The North portion has 102 species recorded in the year; the South portion has 66 species recorded in the year.

The following list of bird species, 85% of all bird species recorded in the survey are equally common to both the North and South Portions of the Trail survey area; they are presented in order of the number of birds seen.



Yellow-rumped Warbler. Photo: Marie O'Shaughnessy

The South portion has only about 40% of the total bird population of the North portion. This is likely a result of the South Portion being a smaller area than that of the North, and that the North Portion is apparently much richer and diverse habitat.

List # Species

| | |
|----|----------------------------|
| 1 | Crow, Northwestern |
| 2 | Mallard |
| 3 | Goose, Canada |
| 4 | Robin, American |
| 5 | Starling, European |
| 6 | Blackbird, Red-winged |
| 7 | Gull, Glaucous-winged |
| 8 | Sparrow, Song |
| 9 | Finch, House |
| 10 | Towhee, Spotted |
| 11 | Waxwing, Cedar |
| 12 | Wigeon, American |
| 13 | Chickadee, Chestnut-backed |
| 14 | Swallow, Violet-Green |
| 15 | Sparrow, Golden-crowned |
| 16 | Junco, Dark-eyed |
| 17 | Sparrow, Fox |
| 18 | Wren, Bewick's |
| 19 | Bushtit |
| 20 | Warbler, Yellow-rumped |
| 21 | Raven, Common |
| 22 | Hummingbird, Anna's |
| 23 | Kinglet, Ruby-crowned |
| 24 | Cowbird, Brown-headed |
| 25 | Quail, California |
| 26 | Flicker, Northern |
| 27 | Goldfinch, American |
| 28 | Warbler, Yellow |

List # Species

| | |
|----|------------------------------|
| 29 | Warbler, Orange-crowned |
| 30 | Wren, Winter |
| 31 | Sparrow, Savannah |
| 32 | Woodpecker, Downy |
| 33 | Kinglet, Golden-crowned |
| 34 | Hummingbird, Rufous |
| 35 | Finch, Purple |
| 36 | Siskin, Pine |
| 37 | Killdeer |
| 38 | Grosbeak, Black-headed |
| 39 | Crossbill, Red |
| 40 | Nuthatch, Red-breasted |
| 41 | Eagle, Bald |
| 42 | Sparrow, Chipping |
| 43 | Vireo, Warbling |
| 44 | Goose, Greater White-fronted |
| 45 | Sparrow, Lincoln's |
| 46 | Pipit, American |
| 47 | Kingfisher, Belted |
| 48 | Hawk, Red-tailed |
| 49 | Hawk, Sharp-shinned |
| 50 | Thrush, Swainson's |
| 51 | Martin, Purple |
| 52 | Rail, Virginia |
| 53 | Loon, Common |
| 54 | Creeper, Brown |
| 55 | Snipe, Wilson's |
| 56 | Flycatcher, Willow |

A Comparison of the Bird Survey Results Found in 2001-2002 and in 2005-2006

A similar survey of bird species diversity and numbers was undertaken during 2001-2002. This survey was conducted in a similar manner to the 2005-2006 survey, with weekly tallies of all bird species and their numbers. The area of the 2001-2002 survey is approximately equivalent to just the South portion of the 2005-2006 survey. The 2001-2002 survey was prompted by changes made to Blenkinsop Creek channel, and at the time there was no bridge over Blenkinsop Lake and associated marsh.

The species diversity and bird populations of the two surveys (with approximately yearlong survey periods) of the South area can be compared to show how the hedgerow, creek and field habitats have changed in attractiveness to different species of birds and how the area has changed in its total bird numbers. Once modifications are made to the two periods of bird survey data to allow direct comparison, the 2001-2002 survey had 63 species and 11 094 birds. The same area in 2005-2006 had 68 species and 21,254 birds. It would appear that the bird population has changed significantly over the four-year interval. Not only have bird numbers more than doubled, but also several new species have increased the species diversity.

It may be that development of the Lochside Trail for public use through the survey area has not had a detrimental impact on overall bird abundance. Habitat along the trail has matured over the time of the two surveys and this may be benefiting bird populations.



Violet-green Swallow. Photo: Marie O'Shaughnessy

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Summer: The Best Time of Year to See Phantoms

By Geoff Huber, Outreach Coordinator for Habitat Acquisition Trust

Victoria is already steeped with legend and mystique, but do you know about a local phantom even rarer than the ghost sightings in Ross Bay cemetery? Truth be told, this phantom and its descendants have been here much longer than any human ghost. So who or what is this phantom we speak of? Sit back and read about one of the most beautiful secrets that Victoria and area has to offer.

The Phantom Orchid (*Cephalanthera austiniiae*), like so many other endangered species located in our region, is on the northern edge of its natural geographic range in southwestern BC. As its name suggests, this perennial plant is all white, turning yellowish with age. The Phantom can be found in mature coniferous and deciduous plant communities that support a specific family of fungi. These fungi are responsible for helping support the parasitic Phantom Orchid, which, unlike most plants in our region, is unable to make energy from the sun. As well, the orchid is often associated with limestone substrates on south and west facing sloped areas.

A more common local plant often confused with the Phantom Orchid is the Indian-pipe (*Monotropa uniflora*). Even though the Indian-pipe is similar in colour, habits (another parasitic plant) and habitat (mature forests), it only has one flower with a very distinct drooping bell shape and is no more than 25 cm tall.

Growing up to 65 cm tall with as many as twenty fragrant flowers per stalk, the Phantom Orchid would seem easy to find, but its already rare habitat is steadily disappearing thanks to regional development and logging. There are just over fifty known locations in the province. That is where Habitat Acquisition Trust (HAT) comes in. We are working in partnership with the Ministry of Environment, with funding from the federal Habitat Stewardship Program, to conduct landowner outreach in areas where these rare beauties can be found. Through our outreach we hope to inform landowners of the impacts of disturbance and development on this fragile species and encourage them to become Habitat Stewards of their private and public lands. We are also interested in speaking to landowners who think they have spotted the Phantom Orchid on their land. If you have seen one of these rare orchids, please call us at HAT (995-2428) or email us at hatmail@hat.bc.ca (All conversations with HAT are confidential!).

Editor's Note: Readers interested in learning more about the parasitic lifestyle of this plant, or curious about what it looks like can refer to a back issue of the Victoria Naturalist: Volume 63, Issue 4 (January/February 2007).



Jim Farrell 477-7291 jamesbfarrell@shaw.ca



Welcome to New VNHS Members

Our Society grew by 15 new members since the last issue. The following agreed to have their names published in our "welcome" column:

Valentin and Anne Schaefer
Superior Street
birds, ecology, intertidal

Dawn Sutherland
Lorne Terrace
birds, field trips

David Riedel
Michigan Street
birds

CALENDAR OF EVENTS

REGULAR MEETINGS are generally held September-April on the following days: **Board of Directors**: the first Tuesday of each month (directors' meetings are held at Swan Lake Nature Sanctuary at 7:30 p.m.); **Natural History Presentations**: the second Tuesday at 7:30 p.m., in Murray and Anne Fraser Building, Room 159, University of Victoria; **Botany Night**: the third Tuesday, 7:30 p.m., Swan Lake Nature House; **Birders' Night**: the fourth Wednesday, 7:30 p.m., Murray and Anne Fraser Building, Room 159, University of Victoria. **Marine Night**: the last Monday, 7:30 p.m., in Murray and Anne Fraser Building, Room 159, University of Victoria. Locations are given in the calendar listings. Telephone the VNHS Events Tape at 479-2054 for further information and updates. The VNHS Calendar also appears on the Internet at: <http://www.vicnhs.bc.ca>, and is updated regularly.

SEPTEMBER

Tuesday, September 11

NATURAL HISTORY PRESENTATION

Southeast Arizona

Join **Ed Pellizzon** with **Ted Ardley** as they take you on a multimedia journey (slides and video) of the insects, birds, mammals, and botany of Southeast Arizona, and learn why this corner of the state is so diverse. We meet in room 159 of the Fraser Building at University of Victoria at 7:30 p.m. Everyone is welcome. Bring a friend and a coffee cup.

Saturday, September 15 – Monday, October 8

EVENT

"The Nature of Island Artists" Artshow

A biennial artshow featuring amazing art by Vancouver Island and Gulf Island artists, held at the Goldstream Park Nature House. Open daily 9-4:30 p.m. Contact the Goldstream Park Nature House at 478-9414 for more info.

Tuesday, September 18

BOTANY NIGHT

Flora From The Eastern Pyrenees by Judith Holm

The Eyne Valley is known for its diversity of flora. Be forewarned that this introduction may tempt you to see it for yourself. Swan Lake Nature House, 7:30 p.m. Everyone welcome, bring your friends.

Monday, September 24

MARINE NIGHT

Outer Coast Seaweeds

Diane Bernard, known as the "Seaweed Lady" will speak about the natural history of seaweeds and their many uses. Diane heads the Sooke-based company that distributes seaweed products to clients around the world. For background information about our speaker, see http://www.outercoastseaweeds.com/rev_Harrowsmith.htm 7:30 p.m. Room 159, Fraser Building, University of Victoria. Everyone welcome.

Wednesday, September 26

BIRDERS' NIGHT

Rhinos, Rollers and Rock-jumpers – A Second Tour of Southern Africa

Bryan Gates and members of the Victoria and Vancouver Natural History Societies will present a slide-illustrated account of a January 2007 safari into Botswana, Namibia and South Africa. The amazing diversity of birds, mammals and plants in the deserts, vast wetlands and pelagic waters of this exciting region will be featured. We meet in room 159 of the Fraser

Building at University of Victoria at 7:30 p.m. Bring a friend and a coffee cup.

Sunday, September 30

EVENT

Hawk Watch at East Sooke Regional Park

The raptor spectacular is underway! This year we will be joined by birding enthusiasts from the Victoria Natural History Society, as well as staff from Pacific Northwest Raptors who will be bringing a live raptor. Displays and activities will take place in the field at Aylard Farm and experts with spotting scopes will be at the viewpoint above Beechey Head until 3 p.m. The hike up to the viewpoint requires that you wear sturdy footwear and be prepared for a 20-minute hike up a steep and rocky trail. Bring your binoculars, water and a lunch. Drop in at the CRD Parks tent in the Aylard Farm parking lot off Becher Bay Road.
11 a.m. – 3 p.m.

OCTOBER

Sunday, October 7

FIELD TRIP

Mosses and Lichens in Thetis Lake Park

A repeat of the great workshop that **Gerry Ansell** has given for the last two years. He shows us the many different mosses and lichens that make this park so very special. Meet at the main parking lot at 10:00 a.m. Parking is free in October. No pets please. Contact Agnes at thelynn@shaw.ca or 721-0634 for more information.

Tuesday, October 9

NATURAL HISTORY PRESENTATION

Members' Night

Have you have been taking lots of pictures or maybe video during the past year and would like to share them, well we would love to see them, VNHS Members' Night is the place for you to show us your stuff! We can accommodate digital pictures with our laptop computer and digital projector, video on cd or dvd's, and 35 mm slides with our slide projector. If you are interested in doing a presentation call **Ed Pellizzon** at 881-1476. Everyone is welcome; we meet at 7:30 p.m., room 159 in the Fraser building at University of Victoria. Bring a friend and a coffee cup.

Sunday, October 14

FIELD TRIP

Juan de Fuca Pelagic Birding

This is a new field trip for the VNHS. We have hired a boat (the *Fantasea II*) to go from Victoria Harbour out into the Juan de Fuca Strait and to Race Rocks to find some of the pelagic

species that feed there. We will follow the tide debris line that occurs between Victoria and Race Rocks as the currents cause an upwelling of nutrients from the bottom, resulting in the best feeding spots for the birds. Possible species include shearwater, murrelet, auklet, jaeger, fulmar, puffin, many species of gull, phalarope, and other pelagics. There is room for 20 people; the cost is \$37.50 per person for a 3 hour trip. If the birding is good and the group wishes, we can stay out for an additional hour for \$7.50 per person. You must pre-register by phoning **Ed Pellizzon** at 881-1476.

Tuesday, October 16

BOTANY NIGHT

Phytogeography Of Rhodiola integrifolia, Ledge Stonecrop

Join **Heidi Guest** as she describes her research about this succulent species which grows in western North America and eastern Asia. Everyone welcome, bring your friends. Swan Lake Nature House, 7:30 p.m.

Wednesday, October 24

BIRDERS' NIGHT

The Coastal Dune Ecosystem of Cordova Spit

Glenn Bartley has been studying coastal dune ecosystems,

which are an extremely rare ecosystem that have been heavily impacted by human interactions, Cordova Spit represents one of the best examples of an intact coastal dune ecosystem that is vital habitat to dozens of species of migratory birds, come and learn about these birds and the impact that humans are causing. We meet in room 159 of the Fraser building at University of Victoria at 7:30 p.m. Bring your mug for tea and coffee and, as usual, everyone is welcome.

Monday, October 29

MARINE NIGHT

Hot vents of Pacific Ocean volcanic arcs – Mariana and South Tonga

Dr. Kim Juniper will describe the unusual hot vent habitats and biological communities on underwater volcanoes associated with arc volcanism in the western and southern Pacific Ocean. These deep-sea hot springs were discovered during joint Canada-US and Canada-Germany expeditions from 2004-2007. Highlights include liquid carbon dioxide vents, first observations of underwater eruptions, and hybrid ecosystems nourished by both photosynthesis and chemosynthesis. 7:30 p.m. Room 159, Fraser Building, University of Victoria. Everyone welcome.

BULLETIN BOARD

Volunteer with the VNHS School Project

Here is a summary of 2006 activities associated with the VNHS school project (see p.5 for spring 2007 activities):

- 651 school ages children from local schools and youth groups participated;
- 32 groups ranging in size from 12 to 40;
- Ages ranged from Kindergarten age to Grade 11;
- 70% of the children attended schools located in an urban setting;
- 20 volunteer naturalists contributed to the field trips; and
- 15 local parks were visited for out-door walks, each lasting a few hours.

Interested in getting involved? Contact Bill Dancer at dcdancer@shaw.ca / 721-5273.

Interested in a Bird Taxidermy Workshop?

This fall/winter, the VNHS and Lagoon Taxidermy would like to hold a workshop where participants would learn basic bird taxidermy skills. The specimens will become part of an education collection available for teachers and Society members to borrow as part of our Schools Project. This two-day workshop, done over a weekend, will cost between \$50 and \$75, and specimens and materials will be provided. Please contact Darren Copley (dccopley@telus.net/479-6622) to give us an idea about the level of interest.

Parking Fees at UVic

This is to advise that we have been notified there will be a

parking fee after 6:00 p.m. week nights effective September 1. The charge is \$2.00 and can be purchased at the parking lot.

Volunteers Still Needed

Weekend volunteers still desperately needed during the Goldstream artshow (p.20). Please call our volunteer Volunteer Coordinator, Judith Parish (382-1026) if you can help with this.

Saturday Birding Group

Meet opposite the entrance to Beaver Lake Park on Elk Lake Drive (between Haliburton and Royal Oak) at 7:00 a.m. April-June, 8:00 a.m July–March. Birding location will be decided at the meeting point. For more information, call **Rick Schortinghuis** at 652-3326.

Year-round Tuesday Morning Birding Group

Meet at the foot of Bowker Ave. at 9:00 a.m. Birding activities take place at various locations around Greater Victoria. For information, contact **Bill Dancer** (721-5273) or dcdancer@shaw.ca.

Volunteer at Swan Lake

School is back in session and at Swan Lake Christmas Hill Nature Sanctuary they are getting ready for visiting school groups. Join the fun and volunteer as an Assistant Naturalist this fall. Contact **Joan** for more details at 479-0211 or email: volunteer@swanlake.bc.ca



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The Nature of Island Artists

September 15 – October 8, 2007
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Information: naturehouse.ca, or 478-9414

