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COVER PHOTO: Native to eastern North America, the Eastern Cottontail was introduced to Vancouver Island in the 1960's (page 9). *Photo*: Marie O'Shaughnessy It is difficult to imagine sweet, harmless bunnies having a big impact on any ecosystem, but after witnessing the "rabbit barrens" on San Juan Island a few years ago, I'm a believer. European Rabbits (just like those that populate the grounds at the University of Victoria and the Victoria General Hospital), were introduced to San Juan by a lighthouse keeper at the turn of the last century. Over the last 108 years, they have wreaked havoc on the prairie habitat of American Camp National Historical Park. When we visited, there was clear botanical zonation encircling the greatest concentrations of these cutie-pie bunnies. The plant zones were based on edibility, with Death Camas (Zigodenus venenosus) among the last to succumb to the chronic nibbling. And finally, there would be nothing but rocks and dirt (see back cover). It was a real eye-opener.

Since then the rascally rabbit population has crashed, but even then their impacts are still felt. Re-vegetation of the barrens comes in the form of weeds rather than native plants, and in the meantime the rabbits are breeding like....rabbits. Because most of Victoria's protected areas are located on rock outcrops, the establishment of extensive warrens in this region may never occur.

Claudia

P.S. I wanted to thank James Miskelly for his assistance with the editing of the magazine this past couple of years, culminating in his big finish with the last issue. Now that my life has returned to what I consider normal, he is free to chase rabbits.

President's Message

By Darren Copley

p until six months ago, I had been providing natural history programming in the provincial park system, and, in my 15 year career there, I witnessed many changes. Environmental and cultural education in provincial parks is now an option that the contractors that operate the campgrounds can provide, rather than being a separate contract and considered essential. There is no longer any direct support from BC Parks, and the programming has become entertainment rather than education. There was a time that the BC Parks system was looked at as a model to follow, and it produced such noted biologists and naturalists as David Stirling, Yorke Edwards, Robert Cannings, David Fraser (all members of the VNHS), and many more. Today the people providing programming in provincial parks have very little experience or training and there are no more noted naturalists to train the new generation of park naturalists.

What was it that changed my early focus from wanting to be a doctor, to becoming a park naturalist? Certainly not

money. The big change happened to me in university. Apparently this is where I was most receptive to new ideas, and with the guidance of a student friend, a teacher, a course, and other mentors, I started down this path. I remember very clearly learning about the vertebrates of BC through a biology course, where exciting field-trips were offered that included seeing owls, catching salamanders at night, and even building nest-boxes. My friend and fellow student Eric Walters then got me involved in park interpretation by coaxing me into leading field-trips and talks, both of which I was deathly afraid of. It was here that I discovered what it was like to help open someone else's eyes to the wonders of natural history, and found my career in public programming. I'll never forget the day I showed someone their first Western Tanager, they were almost in tears because they had no idea we had birds as colourful as these.

Through becoming a park naturalist, I next met who I consider to be my most important mentor. David Fraser



Darren with his niece. Photo: Claudia Copley.

was a biologist who worked under contract to BC Parks and his company hired me as a park naturalist to work at Goldstream, Sidney Spit, and the Gulf Islands. Dave was an all-round naturalist and biologist who new something interesting about almost everything. His guidance and support inspired me to try and learn as much about nature as he knew. Dave was very good at teaching, and always had a new location or field trip up his sleeve. My first introduction to the Victoria Natural History Society was through Dave and the Christmas Bird Count.

After having a career that involved educating elementary and high school students, always hoping that it is here that we will have the biggest impact, it seems that my opinion on that has changed too. Without the support of parents and peers, there is no continuity, and students go back to their lives as consumers. I think that my focus in the second part of my life (I'm now 40) will be to become a mentor to students who are in university. Becoming a mentor, like Dave was for me, is one of the most important things I think one can do to help people learn to care about nature.

I challenge all of you to become a mentor to someone else. Let's take the approach that salmon and other animals take to maintaining their populations, by replacing themselves. We should all at least mentor one, but preferably more, recruits into the wonders of natural history and at least replace ourselves when we pass on. Let's get this population of naturalists increasing again. One of my goals as president is to forge links with university and college students, perhaps offering regular field trips specifically for students, as well as a mentorship program (looking at models that had a lasting impact such as "Skipper's Kids"). As I take on the honour of being your president, I look forward to hearing from the membership. How did you become interested in nature? Was it a mentor, a teacher, a parent? Let's learn from what has worked in the past through sharing what we love with others. The most important part of being a naturalist to me is being able to share it with someone else.





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CRD Wildlife Tree Stewardship Program (WiTS) Summary for 2007 Breeding Season

By Gwen Greenwood and Wendy Tyrrell

s many of you know, the WiTS program has been monitoring wildlife trees with nesting Bald Eagles, Osprey, and a few other raptor species on Vancouver Island since 2001. The program now also includes the Lower Mainland and South Okanagan. In addition to establishing a baseline for the breeding population of Bald Eagles amidst many habitat changes, WiTS also focuses on community education and habitat protection through landowner contact and collaborating with municipalities and regional districts.

Bald Eagles

A total of 48 trees were monitored. An eagle "territory" may have 2 or 3 nest trees.

- 30 territories were active
- 27 eaglets fledged from 16 nests
- 14 nesting territories were active at some point in the nesting season but produced no young

One nest on the Saanich Peninsula produced 3 young. One of these fledglings had difficulty flying and was rescued from a ditch and taken to Wild ARC overnight. The first attempt to release this eaglet failed when it was unable to get airborne but after a couple more days of rest it was successfully released and rejoined the family for some hunting before departing from the territory.

On another occasion the benefit of having working connections with municipalities paid off. A trail and bridge were being built at the bottom of an active nest tree. With an alert from the monitor, our coordinator contacted the municipality and work was postponed until after breeding season.

We know of at least 17 active eagle territories spread through the small islands near Sidney. However, monitoring throughout the breeding season is sporadic and the information we are able to gather varies from year to year. It does remain helpful to keep track of the habitat and the abundance of eagles in this area.

Osprey

Ten territories were monitored. Although many Osprey nests are not in trees but are instead in artificial structures, we monitor those territories that we know of in order to add to our overall information of the breeding population.

- 7 young fledged from 4 nests
- 6 nests either failed or were not active

An Osprey pair near Victoria built their nest on the decommissioned navy ship "Huron". The Department of National Defense (DND) built an alternate structure with a platform and successfully moved the nest on April 26. This nest subsequently produced 3 young. This is the third time that the DND has relocated an Osprey nest.

Great Horned Owl

• 1 active nest tree was monitored and produced 3 young

If anyone has any eagle or other raptor nest sightings, or if you are interested in being a monitor, we would love to hear from you. There are always new nests cropping up.

Thanks to all our dedicated monitors, BC Nature, and to all who make this program viable. A special thanks to Reg Kirkham from Island Camping and his water taxi for his enthusiastic help. WiTS is also very fortunate to have Ian Moul as our new BC coordinator. Ian brings a wealth of enthusiasm and experience to the program.

Contact information: Wendy Tyrrell 598-7276 wendyct@telus.net Gwen Greenwood 652-2876 tggreenwood@telus.net



Osprey. *Photo*: Master Corporal Karl McKay, Base Imaging, CFB Esquimalt.

Amanita pantherina, the Panther Cap

By Bryce Kendrick

e are headed into the summer and Victoria's 'Mediterranean' drought, during which fungi will become increasingly rare, but there is at least one star performer – Amanita pantherina – which is popping up in the woods as I write this in early June. Amanita pantherina starts off as a small, almost spherical head, emerging from the soil. As the cap expands, the universal veil gradually breaks up into many small scurfy off-white patches, which sit evenly spaced all over the brown cap, presenting a very attractive picture to the wandering naturalist. However, while visually attractive, this mushroom presents certain problems if consumed. It is a member of a group that produces hallucinations in people. This is because it contains ibotenic acid, which turns into muscimol when the mushroom dries out. The most famous source of this chemical is a closely related species, Amanita muscaria, the red-andwhite fly agaric.

This substance induces muscle spasms, dizziness (and vomiting, if too many mushrooms have been eaten), then a deep sleep, full of fantastic dreams, lasting about two hours. On waking, the subject usually experiences a 'good trip' – a feeling of elation that persists for several hours. People often become hyperactive, making compulsive and uncoordinated movements, perhaps talking non-stop, and having altered perceptions of reality. Occasionally the experience is a 'downer.' Clearly, these Amanitas contains a substance that specifically affects the central nervous system. Needless to say, this was discovered long ago, and has been exploited by various peoples. The Soma hymns of the 3,000-year-old sacred Indian book, the *Rig Veda*, have been interpreted as a glorification of *Amanita muscaria* and its effects.

However, the effects of eating this mushroom can be much less interesting when dogs happen to be the consumers. As a dog-owner myself, I must admit that I have no idea why any dog would want to eat *Amanita pantherina*. And yet, a few dogs have this penchant. One woman on Vancouver Island had two dogs that both consumed the mushroom, developed convulsions, and died. I am not trying to freak dog-owners out – it is clear that only a minority of dogs will eat this species. Yet they exist, and we should at least be aware of the possibility.

Soon the fruiting will be over, and dog-owners will be able to relax, at least until the fall, when other examples of dogs' weird tastes will emerge from the forest floor.



Amanita pantherina. Photo: Bryce Kendrick



Mesoleuca gratulata – "A Flying Carpet"

By Jeremy Tatum and Annie Pang

ow many of us have seen a tiny whitish moth fluttering just ahead of us amongst the vegetation in April, May, or even early June and wondered what it was? Many moths are black and white, of course, but the one most likely to draw one's attention in spring is the day-flying moth, Mesoleuca gratulata. Like the Sara Orange-Tip and Western Spring Azure butterflies, it is one of our sure harbingers of spring. With luck you may see it settle briefly to take nectar from one of our spring flowers, such as Erythro*nium oregonum* (White Fawn Lily) or *Mahonia aquifolium* (Oregon Grape). If you see it fluttering around a Himalayan Blackberry, or, less often, around some other Rubus species such as our native Thimbleberry, Rubus parviflorus, it then means business and it is worth watching closely. With a little bit of patience you may see it settle on a flower or leaf-bud, curve its abdomen forward, and briefly touch the bud with the tip of its abdomen. Watch the exact spot carefully, and, when the moth has flown off, closely examine the bud or its



stalk and look for a green oblong egg. The egg turns yellow two days later.

This moth belongs to the large family Geometridae. The family name means "earth-measurer", which comes from the caterpillars, also known as "inch-worms" or "loopers". Instead of the five pairs of abdominal prolegs that most moth caterpillars have, geometrid caterpillars have only two pairs, at the end of the abdomen, and so they walk in their characteristic geometrid "looping" fashion. Many geometrid caterpillars are famed for their remarkable similarity to a twig, and are difficult to find. The caterpillar of Mesoleuca gratulata, however, is relatively undistinguished. It is rather a plain green, not unlike the caterpillar of the Winter Moth, and not at all twig-like. It hides low under a leaf during the daytime, and it feeds at night. In June it climbs down to the ground, and it makes a flimsy cocoon among the detritus, in which it pupates, to emerge as a moth the following spring.



Mesoleuca gratulata at Logan Park, May 18, 2008. Photos: Annie Pang



"What is this flying carpet's cloth? My goodness! Could it be a moth whose wings show such a sweet display of ribbons, white, in light of day...?" —A. PANG

Given the English name, Western White Ribbon Carpet, it has a similar close relative in Eastern Canada, *M. ruficillata*, also called the White Ribbon Carpet, while a European relative, *M. albicillata*, in Britain, bears the long-established name of Beautiful Carpet. The "Carpet" in these names does not imply that these moths are carpet-eating household pests, but rather refers to the wing-patterns, which resemble that of some designs of carpet.

The example shown in the above photograph taken by Annie Pang, who will continue the dialogue now, obviously meant business fluttering around a blackberry flower. Although it seemed to be nectaring, it might equally well have been looking for somewhere to lay an egg.

This photo, taken in the Beaver Lake Ponds area late last spring, was the result of crouching patiently amongst a lot of thorns (remember, we're talking blackberries here) after spotting the moth flitting from one flower to another. It landed, sometimes long enough to get a shot, sometimes not, but at one point when it decided to "park" I was ecstatic and seized the opportunity to zoom in and get as many shots as I could using a light-weight Panasonic Lumix set on macro, zoomed out 12X (approximately 400 mm).

From my vantage I could see the tiny creature's proboscis as it nectared, but there were also forward abdomen gestures as described by Jeremy, above. Had I been less ignorant at the time, I would have examined the bud for an egg after the moth's departure! Alas, I am not a scientist, but a poet/ photographer/amateur naturalist and was convinced this was a special species of butterfly at the time. Once I saw the antennae, I was corrected. Still amazed at the beauty of this creature, as Jeremy warned, I became hooked on moths.

I have since spotted and photographed the *Mesoleuca gratulata* and a few other geometrids at Thetis Lake, Seymour Hill, Logan Park, Goldstream, Gorge Park, and other local woodlands with dappled shade. It has never occurred to me to use a net on any of the Lepidoptera I have photographed, including the "flying carpets". One day, a geometrid landed right on my shirt, but that's another story...

A unique butterfly exhibit by Annie Pang is on display until August 23, 2008 at the Swan Lake Christmas Hill Nature Sanctuary Nature House: 17 different species of butterflies, partnered with poetry – Annie calls them "poetographs". All butterflies were photographed within the Greater Victoria area during the 2007 season.



The Northward Spread of the Eastern Cottontail Rabbit on Vancouver Island

By Bill Merilees

The introduction of Eastern Cottontail and European Rabbits to Vancouver Island possibly began with the best of intentions. Now, on an island where rabbits had not existed previously (Carl & Guiguet, 1972), both have become firmly established alien species.

The small number of cottontails released from a private game farm in Metchosin in 1964/65, had, by 2003, spread north beyond Campbell River. In contrast the 'domestic' variable-pelaged and multi-variety European Rabbit appears to have remained localized. In urban settings, such as the University of Victoria, Victoria General Hospital and the Cassidy Airport, they have established discrete but wellestablished populations, while others, such as the one at the former Elk Falls Pulp Mill, persisted for only a few years in the 1980's. Where European Rabbit populations have become a nuisance, control measures have been undertaken.

For naturalists, these introductions, and in particular the colonisation by the cottontail of southeastern Vancouver

Island, has enabled a number of potential and interesting observations. These include the rate of colonisation, the rabbit's effect on native vegetation, and their impact, as a new food source, to avian and mammalian predator populations. In addition, should predator populations increase, how might they then impact native bird or endemic mammal species?

The basic biology of the Eastern Cottontail on Vancouver Island has not been studied. Christian Englestoft (2007) found that deer and cottontails were heavy grazers of a provincially blue-listed species, white-top aster (*Aster curtus*), on Mill Hill in Victoria, and that broom removal caused a significant decline in cottontail populations.

The purpose of this article is primarily to document the spread of the Eastern Cottontail north along the east side of Vancouver Island and provide comments about the nature of this movement and where it might terminate. Records of Eastern Cottontails, kept at the Royal B.C. Museum (Nagorsen, pers. comm.) and by the author since 1978, are summarized in Table 1 and mapped in Figure 1.



Eastern Cottontail rabbit (Sylvilagus floridanus). Photo: Marie O'Shaughnessy

Table 1. Eastern Cottontail observations on Vancouver Island, 1980 to 2003 (South to North).

Location	on Date	
Shawnigan Lake Blue Grouse Mine, Lake Cowichan Ladysmith at Highway #1 Ivy Green Provincial Park (100 m south) Ivy Green Provincial Park Cassidy South Wellington Harmac Turnoff, Highway #1 Buttertubs Marsh Conservation Area Granite Park Road, Nanaimo Nanoose Turnoff, Highway #1 Englishman River Estuary Englishman River Estuary Englishman River Provincial Park 8 km East of Coombes Coombes Whiskey Creek Bennett Road Qualicum Beach Little Qualicum River Estuary Little Qualicum River Estuary Little Qualicum River Fish Hatchery Horne Lake Rosewall Creek Ship's Point Dove Creek McLean's Mill & Log Train Trail, Port Alberni	February 22, 1980 September 9, 1983 March 1984 January 11, 1982 March 10, 1984 April 10, 1984 May 30, 1983 May 10, 1985 Autumn 1984 May 29, 1990 July 9, 1991 Spring 1990 1988 August 1991 April 1992 1992 September 21, 1992 1986 Late 1990- early 1991 August 1991 July-September 1992 September - October 1994 February 1995 September 1-15, 1996 March 1997	Author David Nagorsen - RBCM David Nagorsen - RBCM Author David Nagorsen - RBCM David Nagorsen - RBCM Author David Nagorsen - RBCM Author David Nagorsen - RBCM Author David Nagorsen - RBCM Earl & Irene Lambert Greg Fitzsimmons not recorded Janet Boley Greg Fitzsimmons Dr. Crawford, Veterinarian Neil Dawe Ed Nygren Terri Martin Helen ? Sid Belsom Scott Crawford Scott Crawford Cam & Ann Holt
Morton Lake Provincial Park	2003	B.C. Parks Staff



The spread of the Eastern Cottontail northward appears to have been facilitated by the presence of travel and hydro transmission corridors due to the preference by this species for edge habitats at elevations below 500 metres (Nagorsen, 2005). Where major river valleys, such as the Cowichan, Englishman, Little and Big Qualicum, enter the Gulf of Georgia small numbers of cottontails have moved westward up these valleys. In 1997, cottontails were first noted 'over the hump' in Port Alberni, and in 2003 an Eastern Cottontail was reported at least as far north as Morton Lake Provincial Park. In analyzing these observations it cannot be ruled out that some records may be the result of translocation and release by well intentioned people, or by animal rehabilitation programs in advance of natural dispersal. The possibility of mistaken identification also cannot be ruled out as the natural or grey form of the European Rabbit is somewhat similar to that of the Eastern Cottontail.

Rate and Nature of Eastern Cottontail Expansion

The eastern Cottontail reached Ivy Green Park about 17 years after its release at Metchosin for a rate of northward spread of approximately 5.4 km per year. Ten years later it had reached Horne Lake by traveling about 7.7 km per year and by 2003 it had further extended its range to Morton Lake, north of Campbell River, at a rate of about 9.9 km per year. The average rate of spread, Metchosin to Morton Lake, has been approximately 7.3 km/year (Table 2).

As the Eastern Cottontail passed through Nanaimo records were kept of cottontail admissions to the Nanaimo Veterinary Hospital (Figure 2). These data indicate a 'wave effect', as the cottontails moved through Greater Nanaimo. Numbers after 1996, appeared to have remained low until 2006 when personal observations appeared to indicate a considerable increase in cottontail numbers. Why the apparent acceleration in rate of movement north between these locations? Possibly the rugged terrain of the Malahat was instrumental for the slow progress during the first leg of this journey. Once this barrier was overcome, farm lands, cleared corridors and a more gentle topography would appear to be more conducive to a more rapid expansion.

A second factor, in tandem with the above, is the function of increasing population numbers. Should the 'wave' that was observed to pass through Nanaimo continue to increase in strength, pressure may have been exerted for the front to move northward faster.

Enquiries of residents at Roberts Lake and Sayward in 2007 provided no indication that Eastern Cottontails had yet penetrated into these areas. Possibly the nature of second growth coniferous forest, combined with a wetter climate and where fewer opportunities for linear edge type habitats exist, has served as a deterrent.

 Table 2. Approximate rate of northward spread of the Eastern Cottontail on Vancouver Island.

 Distances given are approximate from previous location based on road 'mileage'.

Location	Year	Distance	# of Years	Rate of Spread
Metchosin (Site of Introduction) Ivy Green Provincial Park Horn Lake Morton Lake Provincial Park Totals:	1965 1982 1992 2003 278 km	0 km 92 km 77 km 109 km	17 years 10 years 11 years 38 years	5.4 km/year 7.7 km/year 9.9 km/year Average Rate: 7.3 km /year





Courtesy Dr. Ken Langelier and staff.

Response of Predators to Increased Rabbit Populations on Vancouver Island

In 1980 it was predicted that a chain reaction could occur in predator numbers in response to the introduction and spread of the Eastern Cottontail on Vancouver Island (Merilees, 1980). Red-tailed Hawks, Bald and Golden Eagles and Great-horned and Barred Owls could benefit from this new food source. A particular concern was raised about what impact an increase in Golden Eagle numbers might have on Vancouver Island Marmot populations (Merilees, 1980). In urban areas, where 'colonies' of European Rabbits exist, these might also contribute to increased avian predator numbers. In rural areas, wolves and cougars might also benefit. A study of the winter diet of trapped Vancouver Island Marten (Nagorsen *et al.*, 1989) found that only about 2% of the animals autopsied contained cottontail remains.

Tracy MacDonald (1995) studied the interaction of cottontails and Golden Eagles on Vancouver Island.



European Rabbit (*Oryctolagus cuniculus*). *Photo*: Ann Nightingale

Of particular interest would be an analysis of Great-horned and Barred Owl numbers to the cottontail range expansion data presented here.

She concluded that the range expansion of Golden Eagles appeared to correlate with the introduction of the Eastern Cottontail and suggested that Golden Eagle sightings showed an initial increase after the release of Eastern Cottontails.

An analysis of Christmas Bird Counts that compared raptor numbers, pre- and post- rabbit arrival, for communities along south eastern Vancouver Island has not been undertaken. Of particular interest would be an analysis of Great-horned and Barred Owl numbers to the cottontail range expansion data presented here. An examination of owl pellets for cottontail remains would also be revealing.

At the present moment (June, 2008), it appears the northward spread of the Eastern Cottontail may have stalled north of Campbell River. Whether this is actual, in response to a diminished number of travel corridors, a change in land use patterns or other factors, singly or in tandem, is speculative. One thing is apparent: the release of the Eastern Cottontail at Victoria in 1964/65 set of a series of events that has altered the ecology of southeastern Vancouver Island, from Victoria to Campbell River. What the overall effects of the cottontail's arrival has been is worthy of more detailed study.

Acknowledgements:

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Literature Cited:

- Carl, C.G. and C.J. Guiguet. 1972. *Alien Animals of British Columbia*, B.C. Provincial Museum Handbook 14. B.C. Museum, Victoria.
- Englestoft, C. 2007. Impact of broom removal on grazing pressure of white-top aster on Mill Hill, Victoria, B.C. Northwestern Naturalist 88:107.
- MacDonald, T. 1995. Golden Eagle and Eastern Cottontail Rabbit Interactions on Vancouver Island. Self published.
- Merilees, W.J. 1980. Vancouver Island fauna best left alone. B.C. Naturalist Vol. 18(2/3): 19-20.
- Merilees, W.J., K. Langelier and K. Machin. 1992. The arrival of the Eastern Cottontail Rabbit in Nanaimo. Thrush, Series Two, Vol. 4. Journal of the Nanaimo Field Naturalist's Club, Nanaimo B.C.
- Nagorsen, D.W., K.F. Morrison, and J.E. Forsberg. 1989. Winter diet of Vancouver Island Marten (*Martes americana*). Canadian Journal of Zoology 67:1394-1400.
- Nagorsen, D.W. 2005. *Rodents and Lagomorphs of British Columbia*. Royal B.C. Museum Handbook. Royal B.C. Museum, Victoria.

Rocky Point Bird Observatory – Looking to the Future

By Ann Nightingale

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Every year, a number of birds which have been previously banded at RPBO are re-caught as they make their way south.



Your past and present presidents setting up a net. *Photo:* Ann Nightingale

This means that these birds, most of them weighing under an ounce, have traveled north to their breeding grounds and are heading to their wintering grounds using the same narrow corridor that they have used before. When I first observed this, I was struck by what might happen if this valuable migration route was lost or converted to other uses. Rocky Point Bird Observatory's continued use of the site may help preserve this valuable habitat for migrating birds.

As each bird is captured, it is carefully removed from the nets, put into a clean cloth bag and taken to the bander for identification, weighing, measuring and to have age and sex recorded. A unique band is placed on the bird's leg and it is released to continue on its way. All of the data collected is sent to the Canadian Wildlife Services and the joint US/ Canada Bird Banding Laboratory. Here, researchers are able to use the data gathered by banding stations throughout North America.

The observation and banding information is also used by Bird Studies Canada to monitor bird populations increasing and decreasing. You can see the latest trend analysis for several species and more information on RPBO at www.rpbo.org. The accompanying figures are a few examples of species trends as compiled by Bird Studies Canada:

Although RPBO started out as a migration monitoring station, over recent years other projects have been undertaken. Since 2003, we have offered several bird banding workshops, providing training for students and naturalists from across the continent. This year will be our fifth for Monitoring Avian Productivity and Survivorship (MAPS) in the spring, and we'll be resuming the Nocturnal Owl Monitoring project started by Paul Levesque in the fall.

Our future looks very promising as we start to analyze the data that we have collected and build relationships with post-secondary institutions and student researchers. We have worked with researchers studying ticks carried by birds and West Nile Virus.

Rocky Point Bird Observatory does face some challenges though. Unlike most of the other bird banding stations across Canada (and the world, for that matter), RPBO is not open to the public since it is located on restricted Department of National Defence Land. Growth requires involvement of others in both research and in funding. This is difficult to accomplish when people can rarely see the work that you are doing.



In May, I visited Long Point Bird Observatory (LPBO) in Ontario, the birthplace of avian monitoring in Canada. From a small volunteer organization they now have three banding stations on the point, an educational centre and of course, they pioneered what is now Bird Studies Canada. I volunteered at the Old Cut station, which is situated right in the midst of cottage country at Long Point. There are two buildings at the site – a cottage with a banding station and gift shop and a house which has an area set aside as a visitor centre and accommodations for station staff and volunteers. I especially appreciated the fact that volunteers could sleep in until just before banding begins at sunrise! That beats getting up an hour and a half earlier to allow for travel time to Rocky Point.

One of the aspects of LPBO that most impressed me during my visit was an organization called the "Friends of Long Point Bird Observatory". I am sad to say that RPBO doesn't have any Friends – at least not formally. The LPBO Friends serve as the public face of the Bird Observatory, speaking with visitors, running the gift shop, helping with administrative tasks, fundraising and filling other roles that don't actually involve handling the birds. While Rocky Point Bird Observatory doesn't have a gift shop or a visitor's center (yet), we could definitely use some help with some of the other off-site tasks.

One of the key areas where we could use some assistance is with promoting and building the Rocky Point Bird Observatory Endowment Fund managed by the Victoria Foundation. Established in 2005 by Michael Porter,



an RPBO board member and one of the founders of the Long Point Bird Observatory, the endowment is intended to provide funding for studies or purchase of equipment that are beyond our normal means. Except for a paid bander-incharge and occasional assistant bander-in-charge, RPBO is entirely volunteer run, so operates on a very small budget. We welcome donations to the endowment fund or for our operations and would love someone to come forward to help us organize fundraising activities to make the endowment grow. The Baillie Birdathon is one tool that we know hasn't been used to its fullest potential, and is just crying out for an organizer.

RPBO has been concentrating on the bird monitoring component of our work at Rocky Point over the last 14 years, but we also realize that we need to think about doing more. There is potential for providing public education at our MAPS site at Royal Roads University and giving presentations to local groups. Over the next while we'll be talking with people at the university to see what we might do together in the future.

Rocky Point Bird Observatory has become wellestablished as a conservation organization on the southern island, and over the next few years, may well add environmental education to its repertoire. If you are interested in volunteering at the station, or becoming a friend, please contact us at rpbo@rpbo.org or call Ann Nightingale at 250-652-6450. If you wish to contribute to the Rocky Point Bird Observatory endowment fund, please contact the Victoria Foundation at 250-381-5532.

Discovering Nature on Mount Tolmie

By Marie O'Shaughnessy

The months of April and May can be most rewarding when taking a hike to higher elevations. Victoria's mini mountains, Mount Doug, Observatory Hill and Mount Tolmie are easy to access and worth the time to explore. Many migratory birds: warblers, grosbeaks, thrushes, flycatchers, tanagers, sparrows, wrens and buntings, can be seen and heard at these elevations. Some of these long distance flyers, as well as many resident birds, set up house in spring within these Garry Oak meadows. This is a unique habitat which makes up a good percentage of the slopes of the mini-mountains. Some birds will put down only for a few days to rest, feed and be on their way again. Garry Oak meadows are also host to a diverse array of native plants and insects. During the spring months of April and May, carpets of vivid blue camas are a feast for the eyes.

Habitat loss and weather changes are a concern the world over. The changes we see and feel today are affecting us all. Even here on Vancouver Island critical habitat is being depleted for development and commercial gain. Several bird species, especially the Barn and Tree swallow, appear to be experiencing a population decline. I have hardly seen any this year. Approximately an eighth of the world's birds, according to Bird Life International, are at risk for extinction. It is hard enough to accept this reality but one has to consider that not only birds are under threat but all flora and fauna.

Luckily for Victorians, on any given day, we still have a few great places to explore Nature. This exploration is even nicer on a sunny day because even the smallest creatures respond to the warmth and light. And not only is the 360 degree view at the top spectacular, but the air seems cleaner and healthier at these elevations.

During the past two months I have admired the carpets of blue camas and spring gold during my walks on Mount



Townsend's Solitaire. Photos: Marie O'Shaughnessy



Anise Swallowtail (Papilio zelicaon).

Tolmie. I have observed several migrating bird species, especially the warblers. Orange-crowned, Townsend's, Wilson, Yellow and Yellow-rumped have been seen. Townsend's Solitaire, Olive-sided Flycatcher, Chipping Sparrow and Lazuli Buntings arrived during May.

In past years I have been unable to locate the Lazuli Buntings, so when I finally saw two recently, I felt particularly privileged. Their numbers appear to have increased locally as some individuals have also been seen and heard on Mount Doug. Perhaps those birds on Mount Tolmie fly back and forth to Mount Doug. A report by an avid birder has suggested that they have nested on Mount Tolmie in the past. This news is encouraging for others who have yet to see this charming blue-and-rust-coloured bunting. Their territorial song is a pleasant warble to my ears, with its two note finale, that sounds remarkably like "cheat sheet."

My hikes along the trails have provided me with glimpses into the busy world of breeding birds. I have observed little Bushtits build their long, grey-sock nests. At other times birds have been gathering little green caterpillars to feed their young. Brightly coloured males have been singing and socializing with their partners. Spring is a wonderful season, but it has a dark side. Sadly on a recent walk, I had discovered the destruction of two Bushtit nests. These had been active nests. I have seen a number of skulking crows in the neighborhood. Perhaps they were the culprits. Such is the life of birds. Territorial songs of three local birds, the Bewick's Wren, the American Robin and the Spotted Towhee, while perched at their look-outs, could be heard on any trail. Even the trill of an Orange-crowned Warbler seemed plentiful this year. It would appear that while some species of bird have declined, others have flourished. The numbers of Chipping Sparrow also seem to be on the rise. In the Victoria area, and especially on Mount Tolmie, their buzzy trill is regularly heard.

When the winds drop on a sunny day, I head up to Mount Tolmie to see what I can find. I have watched butterflies flit from bloom to bloom. Sara Orange-tips, Anise



Cardinal Meadowhawk (Sympetrum illotum).

Swallowtails, Propertius Duskywings, Purplish Coppers, Cabbage Whites and the tiny Spring Azures have been plentiful up there. I even saw a Painted Lady butterfly briefly the other day. Dragonflies too have been seen, flitting from one dried seed pod of a spent camas to another. There seems to be no shortage of the ''buzzing'' kind of insect collecting pollen from nodding blooms. All these little creatures are busy doing what they should be doing at this time of year. Their industrious behaviour will bring colour, scent and beauty to our world if Nature prevails.

On warm days at these elevations one may encounter raptors soaring on thermals. Their slow, effortless glide within these up-draughts remind me of how grounded to *terra firma* I remain. I watch in awe as they pass and can only dream of what it must be like to spread wings and take to the sky.

Meanwhile, the hike up to the summit is definitely a healthy activity. It is during these meanders that one can quiet the mind from the clutter of living and truly look and listen to the sights and sounds around each corner. I believe a sense of joy and peace is fostered within the silence of Nature and, when thoughts come to rest, one can really perceive the true beauty that is Nature herself.

> "You cannot perceive beauty but with a serene mind." —DAVID HENRY THOREAU

It is at these moments of connectiveness with Nature, that I truly find fulfillment. When the inspiration comes, take the time to discover the trails to the high places, and explore what Nature has to offer. You might be pleasantly surprised. If nothing else, the exercise is good for the mind, body, and soul.

Imagine What Your \$100 Can Do!

By Ian Fawcett, Deputy Executive Director of The Land Conservancy of BC and Jane McCannell of This Community Cares Foundation

hat will you do with your \$100?" That is the question being put to British Columbians by a new partnership formed between The Land Conservancy and This Community Cares Foundation. And the answer? "Donate your \$100 Climate Action Dividend to the Special Places Campaign (www.specialplacesbc.ca) and help build stronger, healthier, and sustainable communities across B.C."

In late June, the government of British Columbia issued \$100 to each B.C. resident. The "Climate Action Dividend", as it is called, is a rebate on the provincial Carbon Tax initiative and the government has challenged British Columbians to use it wisely to help fight climate change.

"This is a tremendous opportunity for B.C. to take a big step forward," says Ian Fawcett of The Land Conservancy. "We are asking everyone to use their \$100 to take real, tangible and lasting steps toward combating climate change. If we all pull together we can achieve great things. Just imagine what can be accomplished if even 10% of British Columbians join in to take action."

By focusing on Special Places, the partners want to inspire and excite British Columbians to support local projects aimed at ending homelessness and protecting valuable green space. This Community Cares Foundation will distribute funds directly to projects around the province that help people move beyond temporary shelter to more secure housing, self-reliance and independence. The Land Conservancy will use the funds to further the acquisition and permanent protection of special places like community green space, natural areas for our children to play and community garden properties.

This Community Cares Foundation is a kitchen table initiative formed by concerned citizens wanting to make a difference in how we respond to climate change. "The best place to start," says Jane McCannell of This Community Cares "is to make sure our communities are healthy and sustainable. Housing is a fundamental building block of inclusive, healthy families and communities." A critical component of a viable future is to ensure that everyone has a special place of their own – a home.

In a direct way, protecting special places helps to retain green spaces, forests and trees, and agricultural lands which help clean our air and water and, to help capture carbon from the atmosphere. Ensuring the retention of productive farmland allows food to be grown close to market, reducing transportation pollution while helping to ensure food security. More than that, special places form the basis of healthy, sustainable communities. Imagine our impact, if we all worked together and used this opportunity to strengthen and build strong sustainable communities in our province. When people are engaged in this way, with greater understanding, greater knowledge and a passion to help look after the world around them, they begin to make all kinds of changes to their habits and priorities – and this is how we will best adapt to the effects of climate change.

For more information, please see the Special Places campaign website at: www.specialplacesbc.ca or contact: Ian Fawcett: (250) 479-8053/ ifawcett@conservancy.bc.ca or Jane McCannell: (250) 598-7240/ jmccannell@shaw.ca



View from Mount Manuel Quimper in the Sea to Sea Green Belt Regional Park Reserve. *Photo*: Claudia Copley

Panama Flats: Should the "Right to Farm" Outweigh the Obligation to Farm Responsibly?

By Lana Popham, organic farmer and Saanich resident

In Saanich, farming is in the headlines again. The new owners of Panama Flats are in the middle of a controversial fight that involves farming, fill dumping, and ecological risk. Emotions are running high between community members, the Municipality of Saanich and the potential farmers/developers.

How do we as residents make heads or tails out of the information and misinformation coming our way? The best way to do that is to be well informed about what we potentially have to lose.

The new "farm plan" for Panama Flats includes building a berm that – if allowed – will ring the edge of the entire property. The 'plan' is to isolate the flats entirely from winter flooding in order to utilize the land for perennial crops, which in my opinion are unsuited to lands that floods every year.

Panama Flats is made up of a soil class called "organic soil". We are most familiar with them being referred to as "peat soils". This is in contrast to the mineral soils that are most common on our Island. Our peat lands are very precious and unique. When we look at their history we can understand why. These sensitive and unique soils started their formation just after the glaciers left. Lakes were formed in this area both by glacier melt water and by fingers of the ocean being land locked. The levels of peat were gradually formed by successions of vegetation continually encroaching on these lakes and being submerged and deprived of oxygen. This is a very slow process and worldwide only constitutes 3% of our landmass.

To responsibly farm in peat soils takes specific management practices. There is a fine balance between destroying the peat system and working responsibly within it. Water plays a key role in this management.

If we look at Panama Flats, we know that over the winter months it lies submerged in water. This water level allows the peat to remain saturated and the structure of the peat bog to remain at a certain level. Previous farming practices of Panama Flats worked within the seasonal patterns of the wet and dry seasons. The Flats were left to submerge during the cold, wet, non-growing season. This allowed a winter habitat for wildlife and migrating birds.

Once the spring came and brought drier conditions, the water was pumped, the wildlife moved on, and suitable crops were planted. Potatoes are a crop that has been traditionally planted in this space. Potatoes are very appropriate for such an agricultural situation. We have lost our potato growing capabilities in Central Saanich for decades due to the threat of the Golden Nematode. In a time when we are thinking of There are many reasons to farm responsibly. There are many reasons to choose different crops for different areas.

food security, we should not take prime starch growing areas out of production. Potatoes are a crop that stores well over the winter and I think that fits into our long range agricultural planning.

Bringing fill onto an area such as Panama Flats is ecologically and agriculturally irresponsible. The proposed berm would permanently cover the edges of the valued peat soil and threaten its water holding capabilities. The results of this action could cause the peat bog to settle which is of great concern. The extent of the settling would vary but brings with it a new set of worries. There could be an increase in flooding, a need to continually deepen drainage ditches, and the potential to loose the peat layer as it will dry and the mineral soils would begin to make there way up into this unique horizon. Although the traditional farming method of tilling and plowing can cause have some settling results, the winter rejuvenation due to water retention allows for significant peat conservation.

There are many reasons to farm responsibly. There are many reasons to choose different crops for different areas. Blueberries may do well in this location once the topography is drastically changed, but what if they don't, and what are the impacts of permanently changing the soil and its hydrology? We are left with a scar on a piece of farmland that would be irreparable. The proposal to plant blueberries on Panama Flats may be great on paper...but if we talk to people who have been farming here for years, agrologists who have our soils in their best interest, and community members who value the diversity that this land brings, we will find that the right to farm does not trump the obligation to farm responsibly.

Panama Flats is a unique peat marsh that currently supports a balance between nature's use of the land and the growing of food-crops. These activities have coexisted in harmony since farmers first arrived here. Undertaking forms of farming that will block nature's use and fundamentally change the nature of the soil is not a responsible use of provincial 'right to farm' legislation.

Urban Forest Mapping Report Complete!

By Adam Taylor, Executive Director, Habitat Acquisition Trust

There's an oft-ignored forest in our city. It is made up of street and backyard trees, undeveloped lots, and small parks. Many of the trees are neglected, lonely, and ignored; living (and dying) without enough light, water, or space. However, these trees provide very important functions in our communities. They provide food, shelter and corridors for many species of plants and animals, shade our homes in summer, and insulate them in winter. They raise real estate values, and lower our stress. Greater Victoria's urban trees provide millions of dollars of benefits each year in "green" infrastructure. Yet little is known about our urban forest.

The Urban Forest Stewardship Initiative (UFSI), a collaboration of governments, conservation groups, and individuals, undertook a mapping project to gather basic, quantitative information about the state of our urban forest and how it has changed over the past twenty years, as well providing a baseline for future studies of the urban forest. Caslys Consulting Ltd. was retained to compile the Mapping Report using aerial photography, and to use the 2005 data to calculate the green infrastructure value of our urban trees.

The final Mapping Report, titled *Urban Canopy Cover Mapping and Analysis in the Capital Regional District 1986-2005*, is now available (I promise not to use the full title again!). It shows what most people expect. Greater Victoria has lost a tremendous amount of tree cover, especially in areas where the population is booming, and much of that former treed space has been replaced by impervious surface. In the 19 year period of the study, approximately 5694 acres of tree cover was lost, that is almost 6 times the size of Goldstream Park. In the same period, 2028 acres of impervious surface was added our region.

Of the municipalities in our region, Saanich lost the most tree cover at 1282 acres or 12.6% of urban forest. Colwood lost the greatest percentage of its urban forest at 43.6% (1180 acres). Even rural Metchosin lost more than 1000 acres of tree cover, though little of that was paved over. Perhaps disease and agricultural expansion caused Metchosin's tree loss, but the Mapping Report does not shed any light on why tree cover was lost. Only Highlands and Willis Point managed to gain tree cover – a total of approximately 200 acres.

The value of green infrastructure services provided by our urban forest in 2005 was calculated using CITYgreen software. Based on the tree cover in our region, our urban forest sequesters approximately 25,465 tons of carbon and removes 1050 tons of particulate matter from the air each year. An engineered solution to the stormwater runoff control services provided by trees could cost 96 million dollars a year alone.



Creating Conservation Legacies



Of the municipalities in our region, Saanich lost the most tree cover at 1282 acres or 12.6% of urban forest. Colwood lost the greatest percentage of its urban forest at 43.6% (1180 acres).

All these statistics, though impressive, do not account for the value of urban forests to wildlife, as homes, food, and corridors. Nor does the report look at the qualities of our urban forest, like size, age, species, or health. HAT and UFSI hope the Mapping Report will help with community planning, and create more awareness and study of our urban forest. We believe that it will provide a baseline which can be used to track future changes in the urban forest. Ultimately, it is UFSI's goal to promote a more informed, ecosystembased management approach to our urban forest, which in turn will create healthier trees that provide even more to our community.

If you would like a copy of the Mapping Report, you can download it from the HATwebsite at www.hat.bc.ca. Look for "Stewardship Projects" and then "Urban Forest Stewardship Initiative". The Mapping Report is available as an executive summary or the full report; both are in pdf format.

Please don't hesitate to contact HAT with questions, (or donations or membership requests!) at 995-2428, or email hatmail@hat.bc.ca.

Letters

I am sincerely appreciative of the gift of \$150 toward my professional development as a result of being the teacher of Chadi Saad-Roy, the student who received the Victoria Natural History Society Award at this year's Vancouver Island Regional Science Fair. This gift will be put toward a subscription to the magazine *The Scientist: Magazine of the Life Sciences*. Also it will enable me to join the National Association of Biology Teachers and pay for a year's membership. Your help will be most certainly felt by my students and colleagues, as I will be able to stay on top of current research and developments in the field of biology. I am very appreciative.

> Best regards, Annie Vallance Science Teacher, Glenlyon Norfolk School

Chadi Saad-Roy was also awarded \$150 as part of the VNHS' Science Fair Award. His project met our conservation criteria because it was a comparison of the efficiency (and therefore the conservation of energy) used by a car and a train. The train, being dependant of magnetic levitation, was more energy efficient than a car. The train was not only more efficient, it also had a lower coefficient of friction and also went faster over the same distance.

Welcome to New VNHS Members

Our Society grew by 10 new members since the last issue. The following agreed to have their names published in our "welcome" column:

Constata M. Jarvis Simcoe Street

Frank Gee Cedar Hill X Road ecology, natural and cultural heritage, day hiking, photography, camping, trail biking Helen O'Brien Queenswood Drive

Mark Faulkner Dunsmuir Road *birds, botany*

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 Christmas Hill 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.

<u>JULY</u>

Saturday, July 12 FIELD TRIP Dragonflies for Beginners, by Beginners

As Dennis Paulson says in his book, *Dragonflies of Washington*, "Perhaps even more than butterflies, dragonflies are birdwatchers' insects." Meet **Darren** and **Claudia Copley** at the Beaver Lake Retriever Ponds at 11:00 a.m. (another advantage over birding) and we'll see what we can find. We'll look at what field guides are available, some tricks to catching dragonflies, and even how to key out the difficult ones. Bring binoculars, an insect net (if you have one – or we can provide), and hope for sunny weather.

Sunday, July 13

FIELD TRIP

Discovery Island & Chain Islands Ecological Reserve Bird- watchers Kayak Tour

Once home to First Nations people and lighthouse keepers, Discovery Island is now a Provincial Marine Park. A Mecca for sea kayakers and nature enthusiasts, the area presents many opportunities for viewing wildlife and many birds. You may sight Bald Eagles, Oystercatchers, Harlequin Ducks, sandpipers, and cormorants. By kayak we are able to see the numerous sea birds that nest and feed in and around these shores such as the Pigeon Guillemot, Rhinoceros Auklet, and the Common Murre. The tour will also explore the nearby Chain Islands which are protected bird sanctuaries and seal rookeries. You will also learn about the area's natural history. Cost: \$85.95 – 5 hr guided tour. Maximum 12 people/tour. We will be out on the water for five hours so please back a lunch and some snacks. Be prepared for the day's weather, you are able to layer up or down while on the water. Suggested gear: Sunglasses, sun hat, sun screen, footwear you can get wet, windbreaker, toque, binoculars, lunch, snacks and lots of liquid to drink. For more information or to register: Phone: 361-9365 or toll free: 1-877-921-9365 or email: lindsay@ pacificapaddle.com.

Saturday, July 18 and Sunday, July 19

Victoria Butterfly Count

We are always looking for keen eyed volunteers, so get out your field guides. Call **James Miskelly** (count coordinator) at 477-0490 if you would like to help out.

Friday, July 25

FIELD TRIP

Mount Washington Paradise Meadows Day Trip

This will be a joint day trip with the Nanoose Naturalists. The trip is planned for peak bloom time but it is interesting over several weeks with a succession of flowers. The plan is to arrive at Raven Lodge on the mountain around 11:00 am and enjoy an intense botanical tour around Paradise Meadows and potentially a bit further afield. We'll eat our lunch someplace out on the trail. The meadow route is level but if we decide to go a bit further such as around part of the Lake Helen MacKenzie- Battleship Lake route or up the chairlift, some more strenuous hiking may be involved but at a slow pace. We will leave Victoria at 7:00 a.m. and return late, probably stopping for a quick supper on the way home. Preregister by contacting Agnes after July 3. First 10 people to sign up have the option of coming in our van, others to carpool by prearrangement. There is an alternate option to carpool with the Nanoose group for anyone from up-island. Cost to come in the van or carpool with others will be about \$25 for the day from Victoria. Additional option of \$15 (\$12 senior) if we go up the chairlift. Remember to bring money for a fast-food supper as well as lots of water, lunch and snacks. Wear proper footwear and bring warm clothes as it could be cold up there. Call Agnes at 721-0634 or preferably email her (thelynns at shaw.ca) for more information or to register.

Sunday, July 27

FIELD TRIP

Olympics with a Choice

For several years, VNHS has arranged for a bus in Port Angeles to take us up the hill to the Hurricane Ridge Visitor Centre in Washington's Olympic National Park to enjoy the high elevation species at their peak. Then we would walk up the Hurricane Hill trail from there and back down to the Visitor Centre. This year we will offer this as well as a different route. For both choices, we'll still get dropped off at the Visitor's Centre. Those who wish to walk along the road to Hurricane Hill and then up Hurricane Hill can go with Rick. This Hill route has more elevation gain but probably more diversity of species, especially near the very top. The butterflies also are usually good on this route. For those who wish to enjoy the mountain without such elevation gain (or pain), the option is to go with Agnes on the Ridge route that we tried a couple of years back. This group will head along a high ridge trail towards Mount Angeles on the Klahhane Ridge trail. This trail has fabulous views as well as many fascinating sub-alpine plants. Then we'll start downhill from there on the Switchback Trail. This is a rather step descent and goes through a slightly damp area with an amazing variety of different plants. This trail eventually meets the road that goes up the Hill and we have arranged for the bus driver to meet us there to take us back to the ferry. The group choosing the Hill route will also get a few minutes to enjoy the plants in the slightly damp area when the bus stops to pick up the Ridge group. Both routes offer a great opportunity to enjoy the mountain wildflowers at their best.

Although the weather is generally sunny and clear, due to the high elevation, it could possibly be quite cool or it might rain, so be prepared. Also wear sturdy hiking boots and hiking poles would be an asset. Bring a lunch and lots to drink as we will not be near facilities at lunch time. Meet at the Black Ball Ferry terminal in the Inner Harbour at 5:45 a.m. (Allow time to park.) for the 6:10 a.m. sailing of the M.V. Coho. Ferry cost is \$28.00 CND return. You will require identification for going through customs. Cost of the charter bus and entry to the park is \$42.00 CND. We will return on the 5:15 p.m. sailing from Port Angeles (90 minute crossing). Also there is usually good birding on the ferry. Reserve your spot by paying through Paypal on the VNHS website (vicnhs.bc.ca) or you can pay by cheque. Send to VNHS, Box 5220, Victoria BC, V8R 6N4. Either way please let Rick (652-3326) know that you are coming on the trip and that you have made a payment. VNHS members get a priority, please book early. Call Rick Schortinghuis at 652-3326 or email Agnes Lynn at thelynns at shaw.ca if you need more information.

AUGUST

Sunday, August 10

FIELD TRIP

Discovery Island & Chain Islands Ecological Reserve Birdwatchers Kayak Tour

Once home to First Nations people and lighthouse keepers, Discovery Island is now a Provincial Marine Park. A Mecca for sea kayakers and nature enthusiasts, the area presents many opportunities for viewing wildlife and many birds. You may sight Bald Eagles, Oystercatchers, Harlequin Ducks, sandpipers, and cormorants. By kayak we are able to see the numerous sea birds that nest and feed in and around these shores such as the Pigeon Guillemot, Rhinoceros Auklet, and the Common Murre. The tour will also explore the nearby Chain Islands which are protected bird sanctuaries and seal rookeries. You will also learn about the area's natural history. Cost: \$85.95 - 5 hr guided tour. Maximum 12 people/tour. We will be out on the water for five hours so please back a lunch and some snacks. Be prepared for the day's weather, you are able to layer up or down while on the water. Suggested gear: Sunglasses, sun hat, sun screen, footwear you can get wet, windbreaker, toque, binoculars, lunch, snacks and lots of liquid to drink. For more information or to register: Phone: 361-9365 or toll free: 1-877-921-9365 or email: lindsay@pacificapaddle. com.

Saturday, August 15 and Sunday, August 16

Victoria Butterfly Count

We are always looking for keen eyed volunteers, so get out your field guides. Call **James Miskelly** (count coordinator) at 477-0490 if you would like to help out.

Sunday, August 17

FIELD TRIP

Tufted Puffins, Sea Otters and Archaeological Museum

Join us for a field trip on the Olympic Peninsula to Cape Flattery and the First Nations Cultural Center. Cape Flattery is the most northern point on the west coast of the continental United States and is one of the closest locations to Victoria where you will see Tufted Puffins. Islands off the point are home to thousands of seabirds throughout the year. In 1970 tidal erosion uncovered an ancient whaling village at Ozette, parts of which had been covered by mudslides hundreds of years ago. The artifacts that were subsequently found have now classified Ozette as one of the most significant archaeological discoveries ever made in North America! In 1979 the cultural and research center opened to the public in order to share this great archaeological find. Meet at the Black Ball Ferry terminal at 5:45 a.m. (allow time to park) for the 6:10 a.m. sailing of the M.V. Coho. Ferry cost is \$28.00 (CDN) return. You will require identification for going through customs. Cost of the charter bus, lunch and entry to the museum is \$58.00 (CDN). We will return to Victoria on the 9:30 p.m. sailing (90 minute crossing time). Bring a lunch and something to drink; we will have dinner in Port Angeles. There is room for 22 participants plus two leaders. This trip always fills, so reserve your spot early by paying through Paypal on the VNHS web site (vicnhs.bc.ca) or you can send a cheque to VNHS, Box 5220, Victoria, BC, V8R 6N4. Either way please let Rick (652-3326) know that you are coming on the trip and that you have made a payment. VNHS members will be given priority. Leader is Rick Schortinghuis. Call Rick at 652-3326 if you need more information.

Sunday, August 24

NEW

FIELD TRIP

The Ho Rain Forest and Rialto Beach on the Western Olympic Peninsula

This is a new VNHS trip so there will lots of exploring to see what natural treasures we can find. First we will be going to the Ho Rain Forest on the west side of the Olympic Mountains. There should lots of magnificent cedars covered in moss and lichens. We will then move on to the Pacific coast to Rialto Beach where we should see some shorebirds and maybe some Brown Pelicans. This will be a long day so bring a lunch, snacks and drinks. Meet at the Black Ball Ferry terminal at 5:45 a.m. (allow time to park) for the 6:10 a.m. sailing of the M.V. Coho. Ferry cost is \$28.00 (CDN) return. You will require identification for going through customs. Cost of the charter bus is \$52.00 (CDN). We will return to Victoria on the 9:30 p.m. sailing (90 minute crossing time). We will have dinner in Port Angeles. There is room for 11 participants plus one leader. This trip should fill so reserve your spot early by paying through Paypal on the VNHS web site (vicnhs.bc.ca) or you can send a cheque to VNHS, Box 5220, Victoria, BC, V8R 6N4. Either way please let Rick (652-3326) know that you are coming on the trip and that you have made a payment. VNHS members will be given priority. Leader is Rick Schortinghuis. Call Rick at 652-3326 if you need more information.

Saturday, August 30

FIELD TRIP

Exploring the Victoria Shoreline for Shorebirds

We will be searching for migrant shorebirds at Cattle Point, the end of Bowker, Oak Bay Marina, Clover Point and the Ogden Point Breakwater. Meet at Cattle Point at 7:30 a.m. Leader TBA. Call **Rick** at 652-3326 for more information

Sunday, August 31

FIELD TRIP

Shorebirding from Victoria to Sooke

Meet at Helmken Park and Ride at 7:30 a.m. to car pool. We will be going to Esquimalt Lagoon, Albert Head Lagoon, Witty's Lagoon, Ayum Creek and Whiffin Spit. Bring a lunch. Call **Rick Schortinghuis** at 652-3326 if you need more information.

BULLETIN BOARD

Naturalist's Paradise For Sale

14.5 acres on San Juan River floodplain in Port Renfrew. Teeming with wildlife: resident elk herd, bat colony, red-legged frogs, and 10 kinds of berries. Double river frontage, upper estuary, hear the surf! Primitive but comfortable 18' x 28' cabin sleeps five. Drive to doorstep, hydro on property, phone easily available, 14' X 25' workshop, woodshed, water tower. Former farm in ALR, part meadow, part swamp, part alder grove – fabulous soil! Borders San Juan Ecological Reserve. \$325,000. Call Don (250) 384-5266; or email donbuskirk@ telus.net

Saturday Birding Group

We will no longer be meeting opposite the entrance to Beaver Lake Park on Elk Lake Drive (between Haliburton and Royal Oak) at 8:00 a.m. We will now send out the time and location on the RBA (Rare Bird Alert) (592-3381) on the Thursday and Friday before that weeks' walk. 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.



P.O. Box 5220, Stn. B., Victoria, BC, V8R 6N4

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James Miskelly at the rabbit barrens on San Juan Island. Photo: Claudia Copley