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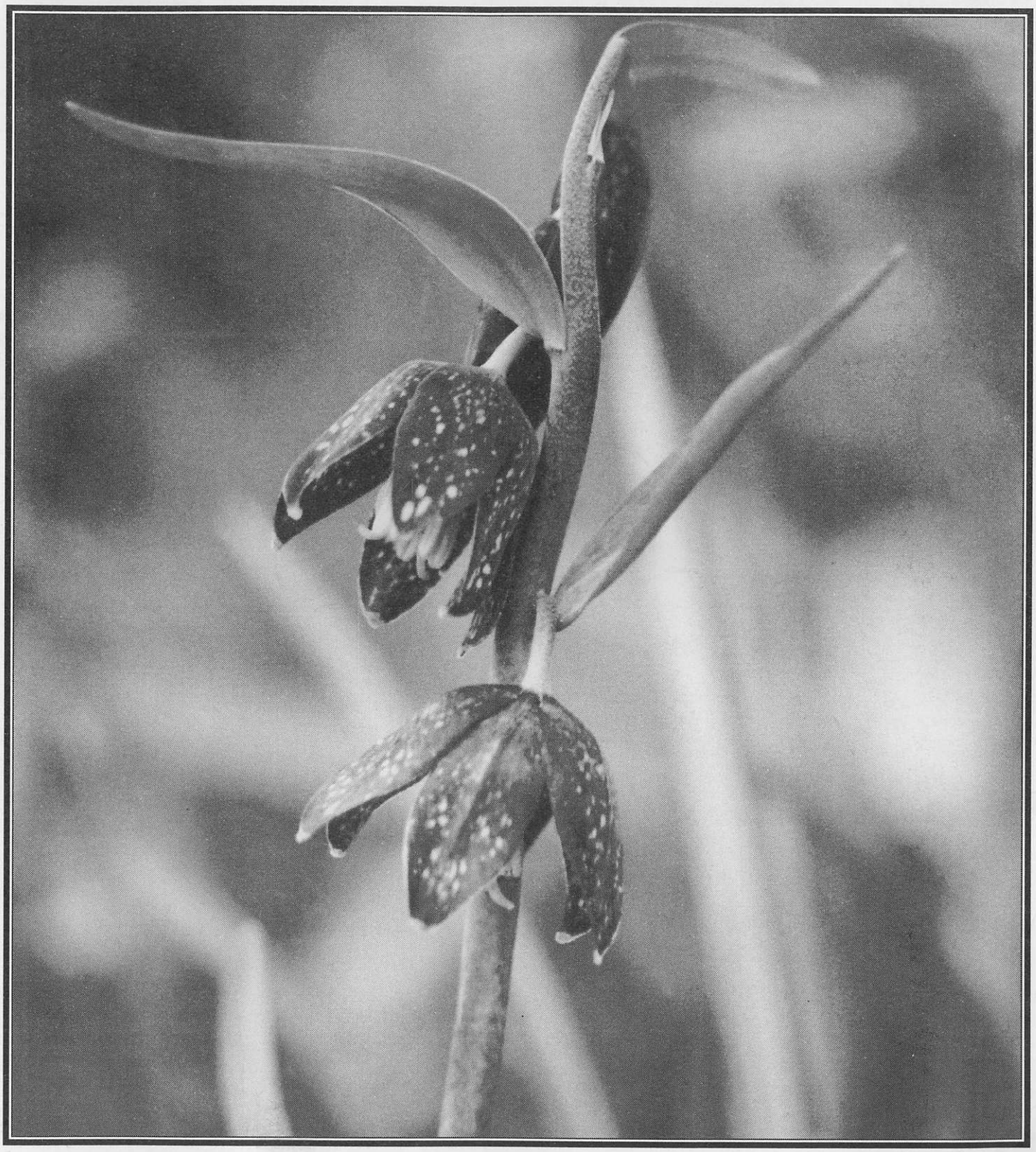

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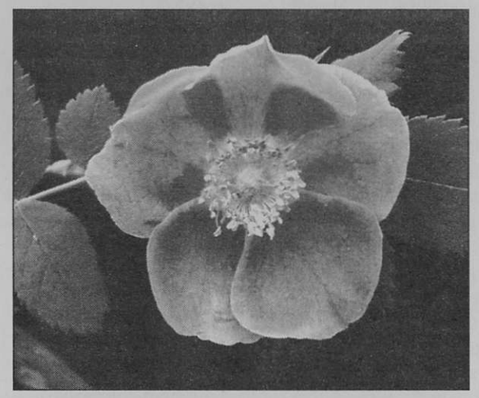
Contents

OUR COVER

To celebrate spring, our cover this issue is the chocolate lily. We thank Marie O'Shaughnessy for her picture and the following description.

Chocolate Lily *(Fritillaria lanceolata)* — member of the lily family. This perennial bulb is found in open woods, grassy meadow and bluffs, enjoying altitudes from subalpine to sea level. One can find this "checker lily" or "mission bells" as it is also known at various locations in the Greater Victoria district. Not noted for its abundance, it can be found singly or in small clusters in several parks — primarily Francis/ King Park, Gore Park and Knockan Hill.

The purplish brown bellshaped flowers with their yellowish-green mottling differ from the more abundant black lily by their lack of foul-smelling perfume. Chocolate lily flowers hang singly or in 2-5 clusters where the black lily supports several flared bell-shaped flowers from axils of upper leaves.



Population Trends of Bird Species in Greater Victoria

By Todd Hatfield

Introduction

The natural environment of Greater Victoria has been substantially altered by land development. Buildings, roads and agricultural fields have replaced forests, wetlands, and Garry Oak meadows. What impact has this had on local area wildlife? Have there been impacts for many species or only a few? Have most of the impacts occurred in the past, or do new impacts continue to occur?

These simple questions are difficult to answer because we lack information on the numbers and distribution of almost all species of plants and animals. One group of species for which we have long term records is birds. As part of a continent-wide program sponsored by the Audubon Society, Victoria-area naturalists gather for an annual event called the Christmas Bird Count. During one 24 hour period in mid to late December, volunteers identify and count all the birds within a 24 km (15 mile) radius of a point on Burnside Road. The Christmas Bird Count has taken place annually in different parts of North America since 1900, and good Victoria records date back to 1957.

Status and Trends

In Greater Victoria, 137 species of birds overwinter with sufficient frequency and in sufficient numbers to allow analysis of long-term trends. Of these species, 61 have declined in abundance over the last 40 years, and 76 have increased. Some species such as Canada geese and Anna's hummingbirds have benefitted from human presence. Other species have suffered. For example, the western bluebird has not been observed during a Christmas Bird Count since the early 1960s.

Statistical tests conducted on the abundance of each species allowed us to group species into three groups: (1) those that showed a statistically significant increase in abundance, (2) those that showed a statistically significant decrease in abundance, and (3) those that showed no significant change. During the last forty years approximately one quarter of the species decreased, a little more than one third increased, and a little more than one third showed no significant change. There has been a marked trend toward more species in the significant decrease and significant increase categories, and fewer in the no significant change category. This suggests that we are continuing to impact wild bird populations.

Regional Comparisons

In general, population trends in Victoria are likely similar to trends elsewhere in the Georgia Basin because human settlement pressures, weather, and animal distributions are similar across the region. Although Christmas Bird Counts are conducted at several British Columbia and Washington locations throughout the Georgia Basin there has been no detailed review and analysis of data at a scale similar to this Greater Victoria review, so we do not know if Victoria is faring better or worse than the rest of the region.

Discussion

This indicator unveils both good news and bad; some species have increased, others have decreased, and many show no significant change. Unfortunately, the reasons for changes in abundance cannot be determined by Christmas Bird Count data. Potential causes of change in abundance are outlined in Box 1.

Box 1
Reasons for changes in abundance may differ among species, but potential factors include:

- habitat alteration,
- climate change,
- pollution,
- predation by cats or other animals,
- competition for nesting sites from introduced species,
- changes in food abundance from bird feeders or garbage,
- oceanographic change, or
- changes to habitat areas beyond the Victoria wintering grounds.

Remarkably, despite substantial changes wrought by humans in the Victoria region, more than one third of overwintering birds continue to show no significant change in abundance over the last 40 years. This highlights the considerable resilience of many bird species. On the other hand, over time more and more species are showing a significant change, suggesting that we are having a growing impact on bird populations in the area.

Box 2
Examples of species that have **increased**

- raven
- Anna's hummingbird
- mallard
- bald eagle
- bushtit

Examples of species that have **decreased**

- western bluebird
- American wigeon
- killdeer
- western meadowlark
- ruffed grouse

Examples of species that have **remained constant**

- ring-necked duck
- Steller's jay
- belted kingfisher
- varied thrush
- northern flicker

We should not be overly jubilant about the fact that one-third of bird species showed a significant increase in abundance: most of these species take advantage of human-induced change. For example, scavengers such as ravens and some species of gull benefit from the garbage we produce. Other species may have benefitted by conversion of mature forests and wild grasslands to shrubby habitat. Surprisingly, however, the data showed an increase in six species dependent on wetlands, despite a decline in this habitat type. Another surprise was the increase in raptors and woodpeckers. We cannot say whether these increases are real or reflect increased attention for these species during the collection of data (despite efforts to statistically correct for changes in data collection effort over time). Certainly some increases appear real and should be heralded, like the almost immediate increase in abundance of bald eagles following the decision to restrict access in Goldstream Park.

About one quarter of overwintering bird species showed significant declines over the last 40 years. Declines in abundance are arguably more deserving of attention than increases because disturbance or habitat losses can be difficult to mitigate, low abundances sometimes make it difficult for animals to find mates, and because "extinction is forever." Of the 34 species that have declined, 11 overwinter in marine habitats, and may be affected by processes beyond the region. The others depend on grasslands, shorelines, and wetlands. Development of agricultural and Garry Oak meadows, lake and marine shorelines, and wetland areas has likely had a substantial impact on these species. Some species like Lewis' Woodpecker were extirpated from the Victoria area prior to collection of Christmas Bird Count data. We should also

acknowledge that these data are for only one group of animals and impacts on other groups of animals and plants may differ.

Personal Actions

There are many things that you can do to protect and enhance wild birds in Greater Victoria, including,

- keep your property in as wild a state as possible,
- keep your cat indoors[1], and
- help to preserve remaining wild places, especially Garry Oak meadows, wetlands, marine shorelines and riparian areas.

Data Collection and Analysis Methods

The Christmas Bird Count is the oldest and largest wildlife survey in the world. There are now over 40,000 participants in North America each year, with approximately 230 counts made annually in Canada. The National Audubon Society sponsors the survey and publishes the results annually in *American Birds*.

The survey was created as a recreational and educational activity, and therefore not intended to be scientifically rigorous. But because it represents one of the only long term biological monitoring studies the data are now used to examine changes in distribution and abundance of overwintering birds. A good deal of effort has recently been expended in testing the quality of the data, and trying to correct for various inconsistencies and biases in the data. There are substantial difficulties in analyzing Christmas Bird Count data, but many scientists agree that the data are nevertheless useful in pointing to conservation issues that need attention.

The Christmas Bird Count is designed as a series of circular count areas 15 miles in diameter, and birders count birds within these "circles" each year on a prespecified day around 25 December. Observers differ greatly in ability, but inexperienced birders are usually matched with those that are more experienced. One strength of the Christmas Bird Count data is that, once established, the geographic centre of the circles rarely changes. Most birders participate on foot, car, and/or boat, although some stay at home and monitor birds that visit their bird feeders.

There are a number of factors that affect how many birds and which species are observed in each circle. Factors such as weather affect both observers and birds. For example, extreme cold, high winds, rain or fog may limit the foraging activity of some birds (and therefore their detectability), the visibility of birds, or an observer's inclination to stay out for long periods of time collecting data. Other factors, particularly the total effort expended by observers, have changed significantly through time. For example, the Victoria Christmas Bird Count has seen a steady rise in the number of participants. These factors must be taken into account when analysing these data, although it may not be possible to do so adequately for all species.

Count data for 1957-1996 were supplied to Westland Resource Group in electronic format by David Pearce of the Victoria Natural History Society. Additional data (number of participants, number of parties, total hours spent bird watching, weather, etc.) were collected from annual Christmas Bird Count data published in *American Birds*. The University of Victoria has discontinued its subscription to this journal, so effort data were available only from 1969 to 1992.

The full database supplied to Westland contains 339 species of birds. Most of these bird species have either not been observed at all in the Victoria Christmas Bird Count, or only very rarely. These data were reduced to 142 species by excluding all species with 10 or fewer observations. A further 5 species of owls were removed because nighttime owling effort has been a relatively recent phenomenon, mostly in the last decade. At some point in the future records for owls may be sufficient to allow these records to be analysed.

It is important to note that there are many issues involved in analysis of any data set, and there are strong proponents of different analysis methodologies for bird count data. To our knowledge Christmas Bird Count data have not been analyzed for individual circles before, at least not in a rigorous manner. Our analysis has therefore blazed some new territory, but many issues regarding the quality of data and appropriateness of analysis techniques require further work. In the end we chose a method that makes intuitive and biological sense. We would be very interested in discussing some of the data collection and analytic issues with others conducting similar studies.

We analysed data for the 137 species using the same methodology. Data for each species were graphed on a scatterplot, and a smoothed regression line (LOESS algorithm) plotted on the graph. These graphs give a visual estimate of the 40 year trend for each species.

The Victoria Christmas Bird Count has seen a steady rise in the number of participants. In 1969 there were 70 observers in 13 parties, that spent 133 party hours observing birds. In 1991 there were 200 observers in 32-68 parties, spending more than 500 party hours collecting data. This represents an enormous increase in the level of effort spent identifying and enumerating birds in the area. The level of effort has a direct bearing on the numbers of species and individuals that are observed in the Victoria circle, and it is therefore necessary to "correct" the data for variation in effort.

The commonest method to correct for effort is to use party hours as the measure of effort. Data are often converted to number of observations per 100 party hours. Because we lacked the full 40 years of effort data we found it necessary to search for a surrogate measure of effort. During exploratory data analysis it was apparent that both species richness (i.e., the total number of species observed) and total abundance increased over the period of record. Both measures were highly correlated with number of observers and total party hours. Total abundance had a stronger association with number of observers and total party hours than did species richness. In a simple linear regression of total abundance on number of observers or total party hours, the regressions were highly significant with R^2 values of approximately 0.60. We therefore corrected for effort by dividing each record by the total abundance for that year. It is likely that this method also corrects somewhat for other factors such as weather. This data correction technique makes no assumptions about total abundance values or patterns of abundance over time. For example, it does not assume a constant abundance in the CRD over time, although it does not preclude this possibility. It does assume a consistent linear relationship between abundance and effort. Whether this assumption is reasonable should be formally tested during future CBC data analyses.

After data were corrected for effort we then transformed them to normalize variances and reduce heterscedasticity. We chose a square root transformation because it is easy to understand: it has the advantage that 0s remain 0s and it does not require that an integer value be added to values of 0. In practice the square root transformation differs little from a logarithm transformation, another widespread data transformation.

When data were corrected and transformed we divided the data into four decades. The first decade (i.e., 1957 - 1966) was selected as the baseline for comparing the three subsequent decades. Statistical tests were then performed to compare mean and median values among the four decades. We therefore assume in this analysis that habitat and population conditions during the first decade represent a meaningful baseline; that is, that this decade is not an outlier for some reason. This is probably the most important assumption made during these analyses because it has the ability to substantially influence results from comparisons to this baseline and therefore conclusions drawn from the results. For example, it is possible that abundances were uncharacteristically low during this time, say due to harsh climate. Any comparison to this baseline after climate had returned to "normal" would therefore under-represent the magnitude of future population declines that are due to habitat destruction and fragmentation. While these possibilities exist, a decision nevertheless has to be made as to which data to use as a baseline for future comparisons. Our use of decades, as opposed to smaller spans of time, should help to avoid the influence of "outlier" years. Yet the division of data into decades still allows updating of the indicator with sufficient frequency for it to be meaningful as a monitoring tool.

Median abundances were compared among the four decades using the nonparametric Wilcoxon rank sum test for two sample, non-paired data (equivalent to the Mann-Whitney test). Means were compared using a two-tailed Welch modified two-sample t-test. The Welch t-test does not assume equal variances in the two samples being compared. We have reported only the results from the Welch t-tests, but results were similar for the Wilcoxon tests.

The statistical tests were used to decide whether a population had increased or decreased significantly. This decision required that we set a critical threshold for p-values (i.e., an ? level) below which a change in abundance was deemed "significant." Although this decision is essentially an arbitrary one, by convention ? is usually set at p=0.05. When multiple comparisons are made, as they were in this study, one should generally adjust the ? level downward because there is a greater likelihood of finding significant differences than when only a single comparison is made (see e.g., Rice 1989). We made the decision to leave the ? level at p=0.05 because a smaller ? level would not have detected changes in abundance that were, in our judgement, biologically significant. For example, the western bluebird has not been observed in Victoria Christmas Bird Counts since the mid-1960s. Numbers of these birds were high in the first few years on record and have remained at 0 since, so it is clear that numbers have decreased substantially. However, due to the fact that non-zero values occurred only in a few early years, the t-test produced a p-value of 0.041. Thus, this species shows a significant decline at an ? level of 0.05, but not if the ? level is adjusted downward by a large amount. The decision to use an ? level of 0.05 is conservative in that more species will fall into the significant change category than if ? was lower, but this conservatism is symmetrical in that it was applied to species that increased, as well as species that decreased.

A final analytic point is the observation that the number of species showing a statistically significant decrease (or increase) tended to increase over time. This cannot be explained by an expectation for a few species to fall into these categories by chance alone. Based on chance alone, roughly 5% of species should fall into the significant change category (i.e., the ? level). We should note that a species "entering" a category may "leave" the category when its abundance changes, so there should be no ratchet effect here. The substantial numbers of species showing a decrease or increase suggests that this is indeed a real phenomenon. However, the biological reasons for this trend need further exploration. At the moment we interpret this to mean that populations continue to be influenced by human settlement and other factors (i.e., that impacts are not restricted to the past).

One cannot determine the causal mechanism for the change in abundance of a particular species based solely on the Victoria Christmas Bird Count data. This analysis allows one to flag which species might deserve formal management effort, and to formulate hypotheses of why a particular species may have increased, decreased or stayed the same. We explored some potential mechanisms based on the habitat

[1]An estimated 63 million domestic cats now inhabit the United States plus as many as 30 million feral cats. Well fed or not, cats are lethal predators, destroying small mammals, birds, amphibians, and reptiles. Estimates are that feral cats in Wisconsin and Virginia kill more than 3 million birds in each state per year. Assuming that the 63 million pet cats capture about one-quarter the number of birds as feral cats, then approximately 200 million birds are killed by cats annually in the US. Canadian figures were not available. Source: Pimentel, D., L. Lach, R. Zuniga, and D. Morrison. 1999. Environmental and economic costs associated with non-indigenous species in the United States.. College of Agriculture and Life Sciences, Cornell University, Ithaca, NY. see http://www.news.cornell.edu/releases/Jan99/species_costs.html

requirements of various species. Based on the literature, we partitioned species into different groups based on their primary overwintering habitat requirements. This then allowed us to provide a preliminary analysis of whether declines or increases tended to be associated with a particular habitat requirement. (The results are presented in the main body of the indicator report.)

A final note is that although 40 years is an exceptionally long time for biological monitoring, Victoria was already heavily settled by 1957. As a result this indicator does not represent changes in comparison to a natural environment. There were undoubtedly many impacts to wild bird habitats and populations prior to 1957.

Data Quality

1. **Procedures for maintaining data quality**
   Data collection techniques are largely determined by the Audubon Society. We assume that the participants and organizers of the Victoria Christmas Bird Count adhere to the standards set by the Audubon Society.
2. **Data confidence limits**
   Confidence in the data depend on the ability of the observers to identify and count birds accurately, the ability of organizers to spread effort across the circle so that areas are not counted more than once, the adherence to accepted practices for collecting these data, the even application of effort to all geographic areas and all species, and the ability of the data analysis to correct for biases in the data especially across years. Please see the methods discussed above for how these issues were addressed. If these issues are dealt with adequately then the use of statistical tests lends considerable confidence to the results.
3. **Assumptions and caveats to data being used as an indicator**
   Please see methods above.
4. **Changes made to data prior to indicator presentation**
   Please see methods above.

Key Word Definitions

n/a

Acknowledgements

Our analyses are only possible after the commitment of hundreds of volunteers over many years. Their participation in the Christmas Bird Count and other monitoring programs is sincerely appreciated. An electronic version of the count data was supplied by David Pearce of the Victoria Natural History Society. Several people took the time to discuss the strengths and weaknesses of Christmas Bird Count data, and to share their expertise of birds: Syd Cannings, Malcolm Clark, Warren Drinnan, Wendy Easton, Barry Smith, Bob Elner and Michael Shepherd.

The work was part of the Capital Regional District's ongoing "Phase III of Report on the Environment — Monitoring Trends." The CRD is starting to put the Reports on the Internet at: http://www.crd.bc.ca/reports/rte/
The Summary of Phase 1 is there, and the rest of the Reports should be posted shortly.

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Note: There are a large number of relevant documents for this indicator. The following reference list provides a good introduction to relevant data analysis problems and basic bird biology.

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Birds in our Area

By Marie O'Shaughnessy

Cedar Waxwing *(Bombycilla cedrorum)*

The frequency of this bird is dependent upon the availability of abundant berry producing trees and shrubs such as juniper and mountain ash. Large flocks can be seen feeding with other birds i.e., robins among fruit bearing trees in urban habitats. They can be observed at times passing berries to each other. Also they have been observed fly catching although nomadic these birds are gregarious and flock in large groups. Carefully observed flocks can sometimes produce a bohemian waxwing. March 1999 has produced 3 bohemian waxwings in the Nanaimo area, however this is unusual as this species is generally found in the southern interior of BC not venturing west of the Cascades most years.

Cedar waxwings are distinctive with their velvety yellowy-buffy breasts and white undertail coverts. Adults have red waxy tips on their secondaries, as well as a bright yellow band at the tip of the tail.

Surf Bird *(Aphriza virgata)*
November, 1998. Clover Point, Victoria.

This stocky sandpiper (10 ins -25 cm) is often seen with turnstones or rock sandpipers. They frequent wave-washed rocky coasts. Surfbirds migrate from their Alaskan/Yukon mountain tundra habitat, once breeding is complete, to rocky coasts and beaches as far south as South America. They can be seen at Clover Point, Cattle Point, the foot of Bowker Ave and Oak Bay Marina, as well as other rocky areas around Victoria.

In flight, surbirds are conspicuous with their white tail tipped with a broad black band. The base of the lower mandible and legs are yellow. The dull gray winter plumaged bird (mantle, head, neck and Upper breast) give way to strongly streaked feathering of the breeding adult. The lower breast and flanks are boldly patterned with brown chevrons. Buffy coloured areas are apparent over the scapulars during the breeding season. Look for them before they head north in April/May or later in the year August through fall and winter months.

A Gallery of VNHS Field Trips

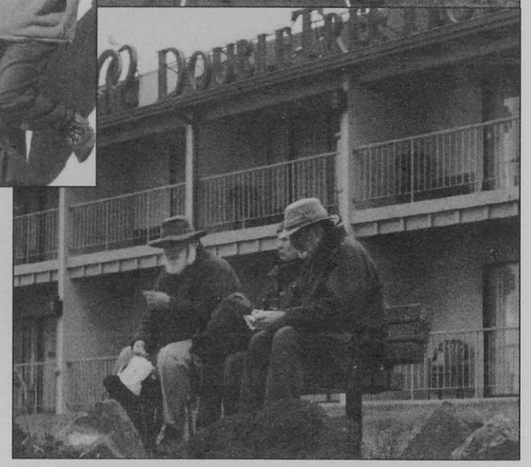
Photos by Marie O'Shaughnessy

(Right) **On the Waterfront – January 23, 1999**
Leader Kevin Slagboom

With only a handful of hardy birders left, we finally made it to Cattle Point for a gallery photo. A "cool" morning of waterfront birding was enjoyed by all participants. We met at Ogden Point, and continued birding along Dallas Road to Holland Point, Clover Point, the rocks at the foot of Bowker Avenue and finally completed our field trip at Cattle Point. Identifiable species tallied at 32. Nothing new and exciting was observed.

(Above) **September 27, 1998 to Port Angeles via M.V. Coho**
Leader Hank VanderPol

At the bow of the Coho, 11 would-be mariners and our expert leader Hank set off on the 10:30 a.m. sailing to Port Angeles. We all knew that we would not have any time ashore as we all needed to be on the next return sailing. October and November mini-pelagic trips allowed for 1-1/2 hr. turn around. It became necessary for all eyes on deck to spot as many birds as possible this trip. Species that we just "had to get" were the highly pelagic ones. Fulmars, shearwaters and petrels. We were not disappointed. Neptune heard our prayers and produced the calmest sea I have ever seen and no wind. Birds and marine mammals were easily spotted. Dahl's and harbour porpoises thrilled us with their playful appearance. California sea lions waved as we passed and glistening heads of harbour seals reminded us we were being spied upon. All this added interest to our bird spotting from the bow of the M.V. Coho. Our species list for the day tallied 26. Clear observations of 1 northern fulmar and 25 sooty shearwaters left little doubt as to what species these birds belong to. Common murre and rhinoceros auklet numbered in the hundreds. 5 species of gull were evident and their combined totals numbers in the thousands. Highlights for the trip were 1 short-tailed shear-water, 4 common terns and the above reported pelagic species. Although no petrels were spotted, we were all very pleased with the variety of species observed during the 4 hour field trip.



(Above) **Lunch Break, November 1998 mini pelagic Trip to Port Angeles**
Leader Hank VanderPol

Jim Fliczuk, Aziza Cooper and Daniel Bryant enjoy their lunches as the rest of the group find drift logs to perch on as we take a much needed rest from birding. It was a typical November day – gray and cold, 30 VNHS members joined this trip. Number of species seen 38 pelagic. Highlights included Sooty shearwarter, forked-tailed storm petrel, ancient murrelets and short-tailed shearwater. The October mini-pelagic trip tallied 36 species. Usual species identified including sooty shearwater and ancient murrelets.

Hat Tricks

A Report on the VNHS Habitat Acquisition Trust Foundation

HAT's first land stewardship project in the region is now underway. In cooperation with the Prospect Lake and District Community Association and the District of Saanich Planning Dept, HAT began the first phase of a Stewardship Enhancement Program (STEP) for the Tod Creek/Prospect Lake Watershed. The aim of the program is to encourage the protection of wildlife habitat and regionally significant plant communities on private land through education, land stewardship agreements and/or conservation covenants. Ken Floe, a geography graduate with glowing reviews for his role in a similar stewardship project near Salmon Arm, has been hired by HAT as the project coordinator. More on this initiative as it progresses!

Andrew MacDonald, the Information Co-ordinator of the Land Stewardship Office, and directors Andrew Harcombe and Andy MacKinnon all flew HAT's flag at the international Endangered Species Conference in Kamloops in March giving HAT a significant boost of peer recognition for its role as a regional land trust protecting habitat. Directors and staff also participated in the Land Trust Alliance conference in Nanaimo held later in the same month.

"Educating the advisors" is another HAT project. Andrew MacDonald facilitated a meeting of sympathetic advisors, including lawyers, an investment advisor, real estate and government representatives and media. The gathering discussed ways to overcome the view of some that a conservation covenant is merely an "encumbrance", i.e. a potential restriction on the title to property that could reduce its dollar value. Concrete steps for "educating the advisors" about the tax advantages and the property-enhancing values of conservation covenants are yet to be finalized.

Conservation covenant law is the focus of some students at UVic's Environmental Law Centre. Two are producing a report for HAT on the most effective drafting for covenants as well as "best practices" policies for their monitoring and enforcement. Ann Hillyer, lawyer and co-author of *Here Today, Here Tomorrow*, is the project supervisor.

In addition to work on land stewardship, conservation covenants and education, HAT has been busy identifying potential land acquisition projects to protect significant habitat in an areas near and dear to all Greater Victorians. HAT's Projects Committee is gathering information on these properties before the Board determines which to pursue.

With a terrific HATs Off! salute, we bade a fond farewell to Jeff Stone, President during HAT's formative years. Jeff guided HAT from a great idea to a registered charitable society that acquired a $630,000 estuary in Sooke. His continuing contribution will be missed but Jeff has other irons in the fire that require his full attention. We wish him well and sincerely thank him for his achievements.

Before leaving, Jeff ensured the director's chair would not have time to cool. Don Eastman, semi-retired research biologist, has joined HAT as its newest director. We look forward to Don's participation on the HAT board.

Finally, to FUNdraising! We have been busy filling out grant applications (this is not fun) and organizing events to enable us to progress with our projects and to ensure HAT's survival as an organization. Eleven lucky participants will travel to southern Ontario (Point Pelee, Rondeau Provincial Park and the Long Point Bird Observatory) in May with David Stirling and HAT Director Marilyn Lambert as their fearless leaders. And, HAT invites you to the next Musical HATs evenings of incredible entertainment on June 4th and 5th. See the accompanying advertisement for details and buy your tickets early to avoid disappointment!

NOTE: If you wish to make a charitable donation in support of HAT and its endeavours, please send a cheque payable to HAT to PO Box 8552, Victoria, B.C. V8W 3S2. Thank-you.

Join us for one or two evenings of entertainment in a coffeehouse atmosphere

HATs Off for the Tod Creek Watershed

featuring the talents of watershed residents and HAT Directors and friends

Friday, June 4

Musical HATs '99

featuring the talents of naturalists, biologists, conservationists and other assorted nature nuts

Saturday, June 5

If you have an item to donate for the raffle, please call Jenny Eastman at 744-1710

The venue for both events is Prospect Lake Community Hall, 5358 Sparton Rd. **Doors open at 7:00pm. Entertainment starts at 7:30pm.** Tickets: $10.00 each available at Members' and Birders' Nights and at the Field Naturalist. **Further information: HAT office, 995-2428.**

Slithery Signs of Spring

By Christopher H. Shewchuk and Heather L. Waye

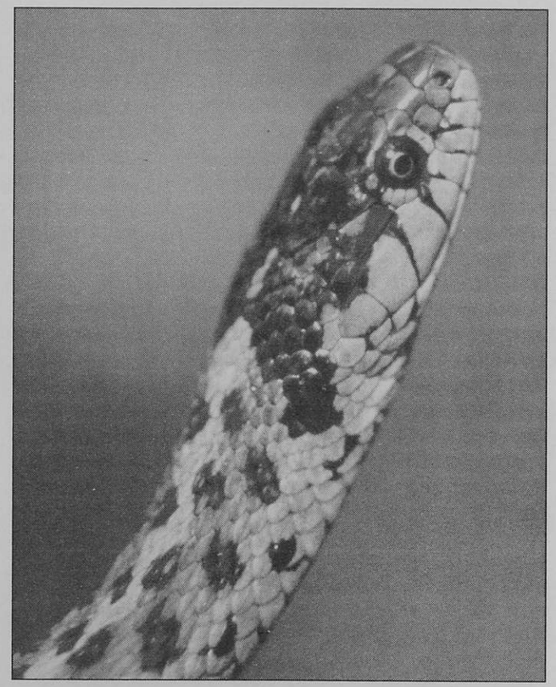
As the first glimpses of spring appear most naturalist are looking forward to budding leaves, spring blossoms and the sweet sounds of the birds on their migration. Others long for the deafening choruses of tree frogs and the chance to see mating salamanders or the courtship rituals of the newt. Spring always offers something exciting for all. A slight rustle in the grass or the crinkling sound of last fall's dry leaves always catches my attention. The first thing that pops into my head is ***snake***, ah the sweet sound of a slithering snake.

Well it is almost here, the best time of the year to see large aggregations of snakes. Here on Vancouver Island we are blessed with three species of garter snakes and soon they will abound, emerging from their subterranean winter hibernation sites to begin the seasonal cycle again. Such wonderful creatures, yet often loathed by those who do not understand their place in nature. Garters are slight creatures, often only a foot long, but powerful enough to evoke some of the strongest emotions from their observers. The response provoked by such a small, harmless animal is likely the result of public misunderstanding and has inspired this series of articles introducing the garter snakes of the area.

Most observers can immediately identify a garter snake, but only as a garter, and the casual observer is often unaware that there are various species living in the same area. The three species in the Victoria area are all superficially similar in colour and pattern but upon closer examination, very different not only physically but also ecologically. I hope all will find the following helpful as a basic primer in garter snake biology. In future articles we hope to address such issues as identification, ecological differences between the species, and steps we all can take to make the lives of snakes and people better. We want everyone to share our appreciation of these animals.

Understanding Garter Snake Biology

The seasonal cycle of all species of garter snakes is similar, dictated by the fact that they are ectotherms (they obtain heat from their environment instead of generating it through metabolism). The realization that reptiles can not generate their own body heat is critical to understanding them. Because they are ectotherms, garters really are at the whim of the weather and climatic conditions that control their activity patterns. As with most animals, garter snakes have an optimal body temperature at which they operate. Their physiological processes and motor performance operate best between 25 and 30C. During the warmer months garters can easily achieve this temperature by behavioural thermoregulation. They bask in the sun when their body is too cool and lurk in the shade when temperatures become too warm. The complex habitat in which they live is a mosaic of different thermal environments through which they move, picking and choosing locations which will allow them to maintain optimal operational body temperatures. However, snakes can't just spend all their time trying to maintain their body temperature. They have a lot to do, like find food, avoid predators, and ultimately find mates and produce offspring. Any of these activities become more complicated when you are pre-occupied with maintaining appropriate body temperature. Almost every aspect of their lives revolves around thermoregulation.



Western Terrestrial Garter Snake. *Photo*: Heather Waye

Garter snakes, however, have many adaptations making them quite successful. One of the neatest tricks garter snakes have is that they can "hibernate" (it is not true hibernation as they are physiologically different than mammals). As winter approaches, and the days get colder and shorter, garter snakes don't have a hope of maintaining their optimal body temperature, so they pack it in for the winter and essentially abandon thermoregulation altogether. Garter snakes will find a den site, usually a hole which provides access below the frost line and allows the snakes to escape freezing winter temperatures. Scores of garter snakes will often use the same den site. Such locations remain somewhat of a mystery, as we don't understand what makes a good hibernation site and we don't understand why garter snakes like to den together. But now, as the days lengthen and the daytime temperatures rise, the snakes will begin to emerge from these sites, sometimes providing awesome viewing opportunities.

In early spring it is often still too cool for snakes to leave the safety of the dens, but on sunny days snakes may emerge to bask in the sun, probably just hoping to get a head start on the year. This is when garters are most conspicuous. They are cool from the long winter hibernation and spend great amounts of time basking. If you find one snake, there is bound to be more. Once adequate daytime temperatures arrive, the den sites come alive; snakes pour out, eager to start a new season and galvanized by warm temperatures and sex hormones. The first task of the year is mating, an often frantic activity with large females pursued by many males at once. It is a great time to observe snakes, as the males do a lot of traveling as they search for scent trails left by females, and if you are lucky you may happen across a mating ball. A mating ball usually consists of a single female that is entwined with multiple males all vying for the right to copulate.

When mating is completed the snakes head for foraging grounds and will feed all summer. As the summer progresses, pregnant females will often stop feeding and spend most of their time thermoregulating to provide optimal conditions for their developing embryos. In late summer or early fall the babies are born and all of the snakes must resume feeding if they are to store enough fat to get them through the next winter. As October rolls around the garters are heading for the hibernation sites again and the cycle is complete. I can hardly wait for the first snake of the season. Look down and you may be lucky too.

Barred Owl *(strix varia)*

By Bob Houston

On February 27th, 1999 at lunch time, we were looking out at the bird feeder and had seen a small brown rat running out from under the bike shed picking up seeds and running back to the shed.

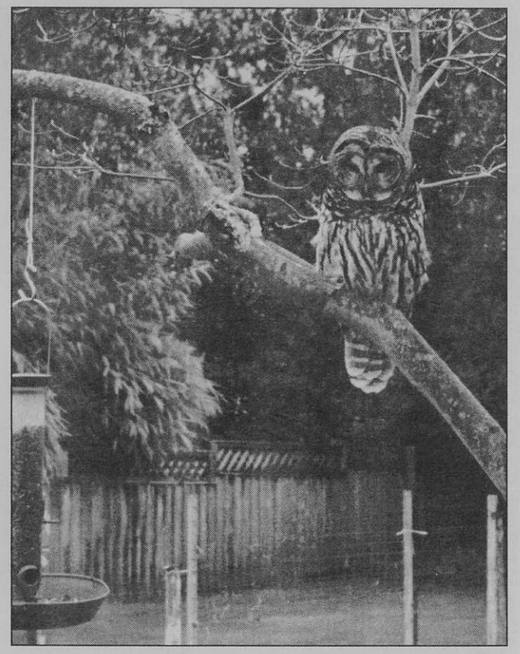
A short while later I looked out at the feeder again and there was a barred owl sitting on the branch of the tree, obviously having seen the rat. We went out the front door of the house and very quickly into the garage and looked out the back window of the garage. The owl was about 12 feet away.

We watched for about 35 minutes. A friend walking past went home and brought back a very small camera — no zoom or anything. I took the photo through the garage window.

The owl flew off after another half an hour and settled into another tree.

Later that night I went out the back door of the house, the motion light cam on and there was the owl again.

We haven't seen the rat since so presume he must have been caught.



Victoria National History Society
Statement of Revenue and Expenses for the year ended December 31, 1998

	General Funds	Scholarship Funds	Conservation Funds
Income			
Interest	$185	$3,405	$9,445
Membership Dues & Subscriptions	13,929		
Donations	671		
Publications(net of costs)	44		
Advertising	1,690		
Binocular raffle			980
Valentines count			63
Other income (banquet,coffee)	490	-	
Total Income	17,009	3,405	10,488
Expenses			
the "Naturalist" production & mailing	8,569		
Meetings costs	350		
Scholarships & Bursaries		2,850	
Postage & Office Supplies	504		
Affiliation fees	6,534		
Telephone-bird alert & event tape	1,195		
Greenways			2,000
Miscellaneous			508
Donation to Swan Lake Nature Center			4,000
Other donations			463
Total Expenses	17,152	2,850	6,971
Excess of income over expenses	($143)	$555	$3,517
Funds on hand at beginning of year	$11,545	$59,369	$156,085
Funds on hand at end of year	$11,402	$59,924	$159,602

Congratulations to Heather Waye who won the VNHS Swarovski binocular raffle. The binocular was presented to Heather by Bruce Whittington, our new President of the Victoria Natural History Society for 1999.

Victoria National History Society
Statement of Financial Position as at December 31, 1998

Assets	General Fund	Conservation Fund	Scholarship Fund	Total
Cash	$4,900	$980		$5,880
Short-term investments (market value= $12,758)	2,752	9,937		12,689
Accounts receivable	713			713
GST refundable	420			420
Inventory of publications	4,800			4,800
Term deposits			6,000	6,000
Investments-long-term		118,684	53,925	172,609
Investments-funds (market value= $32,478)		30,000		30,000
Total	$13,585	$159,602	$59,925	$233,111
Liabilities				
Accounts Payable:	$100			$100
H.A.T. Fund	-			-
Prepaid memberships & subscriptions	4,134			4,134
Fund Balances	$9,351	$159,602	$59,925	$228,878
Totals	$13,585	$159,602	$59,925	$233,111

It is the policy of the Society that:

i)The General Account shall be self-sustaining

ii)The Conservation and Scholarship Funds be maintained as separate funds

iii)Accounting shall be performed on an accrual basis

iv)Insofar as it is appropriate, the first charge on income

iv)Insofar as it is appropriate, the first charge on income shall be to provide for the protection of the capital of the Conservation and Scholarship Funds from erosion of value due to inflation during the year

Garry Oak Meadow Community Festival

The Garry Oak Meadow Community Festival is being held at the University of Victoria, MacLaurin Building on Saturday, May 8 1999, 11:00 a.m. - 6:00 p.m. as part of the International Garry Oak Meadow Symposium, 5 - 9 May 1999. (See University of Victoria Web Site: www.uvcs.uvic.ca/conf/garryoak/)

Saturday's Community Festival will focus on fun and education for the entire family based on the premise that only public "will" can conserve the Garry oak ecosystem. In addition to general activities, such as workshops, demonstrations, artwork by local artists and information displays, there will be four concurrent themes: "Kids of All Ages", "Backyard Gardening", "In Our Ecosystems" and "Community Mapping and Activism".

Our group wishes to extend a special invitation to a wide range of academic, government, non-governmental organisations (NGOs), First Nations and community groups to participate in the "Mapping and Activism" theme. Our theme will include special mapping activities for children. A major benefit of the festival will be the opportunity to demonstrate to the public the importance and value of bioregional mapping. We hope to foster a sense of awareness, pride and understanding of where we live using mapping as a medium to educate and connect people with their Home Place.

Recent initiatives to map a range of ecosystems in the watersheds of the region, from Garry oak to urban salmon habitat, can provide a useful framework and unifying theme for community based conservation efforts. We want to encourage communities to use bioregional mapping as a medium to express their values, concerns and visions; and recognise that it is an important tool for identifying environmental, social and economic priorities and for ecological planning. Efforts to conserve the Garry oak ecosystem can also be used as a model for all sensitive ecosystems of the southeast coast of Vancouver Island and Gulf Islands. In this regard, bioregional and community mapping can be a very powerful component of the conservation message.

Some organisations attending the Symposium will stay, possibly expanding their displays, for the Community Festival. For example, the Conservation Data Centre (CDC) will be working with us to augment the CDC display with information and maps of the Sensitive Ecosystems Inventory (SEI) Project. Similarly, we will be working with BC Parks, CRD Parks, PCC Greenways and a wide variety of NGOs and community groups to provide displays and information tables. We see this event as an opportunity to produce a contact list of all interested parties and facilitate establishment of a regional community mapping network.

If you wish to participate in "Community Mapping and Activism", please contact John Olafson, ASAP. Phone: (250) 658-8993, Email:halcyon@bc.sympatico.ca.

Most displays, maps, information tables, etc. will be located in the main corridor of the MacLaurin Building. Consequently, participating organisations should coordinate any material requirements with Pat McGuire, Conference Management, Division of Continuing Studies, University of Victoria, PO Box 3030. STN CSC, Victoria, BC V8W 3N6 Canada Phone: (250) 721-8746; Fax: (250)721-8774, E-mail: pmcguire@uvic.ca.

Groups and individuals interested in participating or wishing to volunteer for specific activities at the Community Festival, Saturday, 8 May, 11:00 am-6:00 pm should contact Pat McGuire.

General Activities 11:00 am - 6:00 pm. Community Festival Chair: Brenda Beckwith Phone: (250) 472-4694 Email: beckwith@uvic.ca Entertainment 12:00 a.m. - 6:00 p.m. Contact Holly Arntzen and Stephen Foster Phone: (250) 544-4006 Email: art@pacificcoast.net

Theme Activities will run from 11:00 am -5:30 pm:

1. **Kids of All Ages Theme**: Nifty Things to Make with Native Plants! See Kids Make a Difference!
   Contact: Sylvia Samborski Phone: (250) 472-9442
   Email: samborsk@islandnet.com
2. **Backyard Gardening Theme**: Gardening with the Oaks! Get the Dirt on Native Plants!
   Contact Carrina Maslovat Phone: (250) 592-2733
   Email: cmaslovat@pacificcoast.net
3. **In Our Ecosystems Theme**: Who's that Bird? What's that Bug? The Good, the Bad, and the Ugly: Treasures and Pest!
   Contact Mike Meagher Phone: (250) 727-7675
   Email: mmeagher@pfc.forestry.ca
4. **Community Mapping & Activism Theme**: The Bigger Picture: Connecting Communities! Map Your Special Places!
   Contact John Olafson and Linda Beare
   Phone: (250) 658-8993 Email: halcyon@bc.sympatico.ca

Student Volunteers. A number of student volunteers are available to assist with setting up displays, etc. Volunteer Coordinators are: Debbie Chan Email: debchan@uvic.ca and Teresa Rooney Email: teresar@uvic.ca

BATS & BUTTERFLIES

Birds and Botany

IN THE SHUSWAP

NEW FBCN CAMP

May 31 to June 5 '99

BATS *with* Blair Achton & David Lowe

The Shuswap area has eleven of the sixteen species of bats in BC. Blair and local volunteers have worked hard to save a local colony after their original home - a church on the Little Shuswap Band's land - burned down. They have built bat houses which have produced a 50% return rate. Their monitoring system supplies data to the Ministry of Environment, Bat Conservation Society of Canada and Bat Conservation International. David Lowe, from the Ministry of Environment will also conduct a presentation on "creatures that go bump in the night" We will explore these creatures' habitat, visiting the bat houses and caves in which they dwell and assist Blair and her volunteers in their June bat count.

BUTTERFLIES *with* Chris Guppy

Day trips watching butterflies courting, mating, laying eggs, nectaring and basking in the beautiful wildflower filled natural grasslands of the east Thompson Valley. Over 100 different butterflies occur in this area and 70 are in flight in June! On our list to look for are the Anise Swallowtail, the spectacular Two-tailed Swallowtail (BC's largest butterfly), and Sulphurs to name a few. Chris says we may even be lucky enough to see the first Monarchs of the year, migrating north from California.

BIRDING & BOTANY

with Frank Kime *&* Mary Lou Tapson-Jones

We will spend two days with Frank Kime and Mary Lou Tapson-Jones exploring birds and botany on the foreshore of Salmon Arm Bay and the slopes of Fly Hills near Chase. The highlights of birding in these areas will of course include the Western Grebe which finds the marsh area of the Salmon Arm Bay an ideal habitat for breeding, along with the Great Blue Heron, Yellowthroats, Marsh Wrens, the Lazuli Bunting and Bluebirds. Mary Lou Tapson-Jones will take us on a journey through the wildflowers, trees and shrubs of the Shuswap and share with us her extensive knowledge of the ancient food plants of the aboriginal peoples of the Shuswap area.

Camp Coordinator Tammy Anderson tel: (604) 251-6046 for further details.

Accommodation is at **Sorrento Centre Retreat** situated on beautiful Shuswap Lake. Packages available depending upon the type of accommodation you desire. Single and shared rooms available in the lodge. There are also cabanas (prices based on triple occupancy), tent sites and trailer hook-ups. Note: cabanas do not have linen and are not heated; transportation during the camp will be by carpooling.

Register Immediately! for the Bats & Butterflies in the Shuswap Camp

All packages include:
- Selected accommodation
- Meals for 5 days
- All tours and presentations

Make cheques payable/send to:
FBCN, 425-1367 West Broadway
Vancouver, BC V6H 4A9
email fbcn@intergate.bc.ca
call 604-737-3057 to pay by Visa

Please check the desired package (all $ per person):

- ❑ Lodge - Single Occupancy $475*
- ❑ Lodge - Shared Occupancy $425*
- ❑ Cabana - Triple Occupancy $355*
- ❑ Trailer Hook Up $385*
- ❑ Tent Site $355*

Special Day Trip Pkgs available
*Non-members add $30 to package price

Name: _____

Mailing Address: _____

Phone: _____

Visa #: _____

Visa Exp. Date: _____

Duncan Christmas Bird Count – 1998

Species	#	Species	#	Species	#	Species	#
Red-throated Loon	7	Surf Scoter	101	Mew Gull	828	Bewick's Wren	64
Pacific Loon	241	White Winged Scoter	26	Ring-billed Gull	1	Winter Wren	159
Common Loon	46	Common Goldeneye	295	Herring Gull	4	Marsh Wren	18
Pied-billed Grebe	25	Barrow's Goldeneye	110	Thayer's Gull	292	American Dipper	2
Horned Grebe	100	Buffelhead	647	Western Gull	5	Golden-crowned Kinglet	663
Red-necked Grebe	47	Hooded Merganser	97	Glaucous-winged Gull	299	Ruby-crowned Kinglet	106
Western Grebe	16	Common Merganser	424	Hybrids	30	Townsend's Solitaire	3
Double-crested Cormorant	283	Red-breasted Merganser	104	Common Murre	277	Hermit Thrush	7
Brandt's Cormorant	20	Ruddy Duck	230	Pigeon Guillemot	5	American Robin	2,723
Pelagic Cormorant	19	Bald Eagle-Adult	154	Rhinoceros Auklet	2	Varied Thrush	299
Great Blue Heron	72	Bald Eagle-Immature	61	Marbled Murrelet	22	Northern Shrike	4
Green Heron	1	Northern Harrier	13	Rock Dove	73	European Starling	5,259
Tundra Swan	2	Sharp-shinned Hawk	4	Band-tailed Pigeon	20	Hutton's Vireo	1
Trumper Swan	941	Cooper's Hawk	9	Western Screech Owl	1	Orange-crowned Warbler	1
Mute Swan	31	Red-tailed Hawk	37	Great-horned Owl	3	Townsend's Warbler	1
Greater White-fronted Goose	17	Golden Eagle-Adult	3	Northern Pygmy Owl	1	Rufous-sided Towhee	311
Snow Goose	3	American Kestral	2	Short-eared Owl	2	Fox Sparrow	138
Canada Goose	1,709	Merlin	3	Belted Kingfisher	31	Song Sparrow	320
Wood Duck	37	Peregrine Falcon	5	Red-breasted Sapsucker	13	Lincoln's Sparrow	2
Green Winged Teal	303	Ruffed Grouse	1	Downy Woodpecker	31	White-throated Sparrow	2
Black Duck	1	California Quail	156	Hairy Woodpecker	19	Golden-crowned Sparrow	204
Mallard	1,793	Virginia Rail	6	Northern Flicker	110	White-crowned Sparrow	38
Northern Pintail	349	American Coot	828	Pileated Woodpecker	23	Dark-eyed Junco	1,655
Northern Shoveler	47	Killdeer	13	Steller's Jay	321	Red-winged Blackbird	465
Gadwell	21	Black Oystercatcher	4	Northwestern Crow	913	Brewer's Blackbird	147
Eurasian Wigeon	6	Black Turnstone	1	Common Raven	284	Western Meadowlark	1
American Wigeon	2,581	Greater Yellowlegs	1	Chestnut-backed Chickadee	604	Brown-headed Cowbird	2
Canvasback	35	Least Sandpiper	4	Bushtit	82	Purple Finch	112
Ring-necked Duck	347	Dunlin	43	Red-breasted Nuthatch	25	House Finch	288
Greater Scaup	49	Common Snipe	12	Brown Creeper	35	Pine Siskin	874
Lesser Scaup	325					Evening Grosebeak	93
Scaup Species	25					House Sparrow	366

Total number of species 121
Total number of birds 34,278

Other birds seen during count week:
Black Scoter, Blue Grouse, American Pipit and Red Crossbill

From the VNHS Mailbox

There are plenty of things for naturalists to do and see in the coming months. Coming up soon is the **Wings Over the Rockies Bird Festival in the East Kootenays**, from May 3-9. For fast information, check the web site: www.adventurevalley.com/wings, or phone them at 1-888-933-3311.

We've also received information about the second annual **Meadowlark Festival in Penticton**, May 21-24. The Festival began 14 years ago as the Okanagan Big Day Challenge, and the Challenge remains a big part of the Festival. For more information, contact the Festival office, 27 Front Street, Penticton, V2A 1H2. Phone 250-492-5275. Fax 250-496-4049. E-mail meadowlark@img.net There is a web site too: www.meadowlarkfestival.bc.ca.

Closer to home, **The Marine Ecology Station at Cowichan Bay** is well worth a visit. The non-profit facility offers organized programs, and is open for visitors through the summer. Call the Station for more information at 250-748-4522, or check their web site: http://mareco.org/. The facility is located at Pier 66, 1751 Cowichan Bay Road.

Poems

By Hannah Main-van der Kamp

Avian Therapy

Pert juncos, skittish finches
gather around feeders, litter
deck and railings with millet husks,
seed chaff. Wind

winnows leftovers. I count
sparrows in the hedge, name them
song, white crowned, vesper.
It gentles me, aviary therapy.

But do they care for me?

Goshawk perched in a warped oak
picks at feathered clumps under her talons.
I stare with binos, she stares back. Brazen.
I am nervous as a flicker.

Thieves

A rain of robins in arbutus crowns, drunk
on fruit dyed the riot of sunset. I crane
open mouthed, steal time to stare.

Peach breasted birds shower noise, a downpour.
Berries drop, bounce off hard ground
into shrubbery. Now the concourse whooshed away

by the hint of a goshawk
still far off
like the threat of drought.

Covenant

Mild in their manner
but resolute

field dafs emerge, dare to say yes
just yes

that's all
not the noise of debate

not the hothouse of opinion
just yes

the power of those
who are sure of their season

though the mornings of thick darkness
are not yet past.

Morning, Noon and Night

Full of enterprise, finches
carpet the thicket with twitters,
cacophany of busyness.

All the hot midday, red-eyed towhees
whine in the dust,
spoilt children.

Flicker high in oak labyrinths
exults. Sunrise under one wing,
it's going down under another.

HANNAH MAIN-VAN DER KAMP *is a teacher and writer living in Victoria. Her most recent book is* A Gift of Ruin *(Netherlandic Press), available in local book stores, which includes many poems about flora and fauna. A new book,* The Parable Boat *will be published later this year by Wolsak and Wynn (Toronto).*

President's Report to the 1999 Annual General Meeting

By Tom Gillespie

Our Board of Directors gives very sincere thanks to all members who have given of their time and thoughts to help make our Society function successfully. We appreciate all the time and effort so generously contributed by members of the Society.

We would especially like to mention and thank those directors and committee representatives who are retiring at the present time: **Hank VanderPol** who has ably recorded minutes of the Board for three years; **Colleen O'Brien** as HAT representative; and **Wally Macgregor** as our liaison with Swan Lake/ Christmas Hill Nature Sanctuary. **Dannie Carsen** has volunteered to be our liaison to Swan Lake in Wally's place.

We thank the guest speakers and meeting conductors for the twenty-nine excellent evening slide shows lectures that were put on during the last year. Special gratitude is extended to the leaders of the forty-three field trips that were organised in this past year. These field trips and lectures have greatly increased the knowledge of natural history of all members who attended.

At this years banquet **Dorothy Henderson** was awarded our Distinguished Service Award for her dedication to the social events of our Society over the last two decades. **Tony Embleton** was awarded the Distinguished Service Award for his dedicated work on the Conservation Committee and on the Greenways Inventory project.

In this last year Tony Embleton and many volunteers continued on the Greenways inventory and mapping project of all the ecologically sensitive areas within the Capital Region district.

I wish to thank all of our directors for all the work they have done in the last year to keep the Society functioning. I would also like to thank **Mary-Anne Montgomery** for the great help she has been for **Catherine Fryer** on the membership committee. During this past year **Marie O'Shaughnessy** with a few dedicated volunteers has done a great service in publicising our society and attracting new members. Our membership list has grown by nearly ten per cent over the last year.

Many thanks to our capable editor, **Glen Moores**, for publishing six excellent newsletters in the last year.

Also thanks to **Joan Gowan** and **Barbro Baker** for providing refreshments at our evening meetings in this past year.

I have felt honoured to serve as your president for the last two years and I am now stepping down as president and passing the torch on to fresh faces and new energies. I wish to thank every one of you for your support and guidance.

IN MEMORY OF

Margaret Wainwright
1918-1999

The Victoria Natural History Society lost a long time member with the passing of Margaret Wainwright. Margaret served on the Board of Directors from 1979 to 1982 and coordinated the Junior Naturalists Program from 1980-1982.She had a passion for nature and delighted in sharing her knowledge with others.

Margaret was a staunch supporter of the Nature Conservancy of Canada and the Sierra Legal Defense Fund. She spent many hours volunteering with such disparate groups as the National Art Gallery and the Royal B.C. Museum where she helped compile masses of data for the first volumes of the *Birds of B.C.*

Margaret's garden was a sight to behold and a special source of pride for her. Anytime anyone came to call they couldn't leave without saying "hello" to the garden and she was very generous in sharing plants with her friends. When her illness was discovered she chose to return to her own home and to her own bed where she died peacefully overlooking her garden.

She was a woman of strong will, great courage and fun as well.

Welcome to New Members

JANUARY

Elizabeth Keay
of Wilmot Place

Tom Austin
of Taurus
likes birdwatching and hiking

FEBRUARY

Jane Francis and Dave Skilling
of Gladstone Avenue

Andrea Leggett
of Werra Rd.
is interested in habitat aquisition, restoration, conservation; botany and birding; natural history

Wanda Gorsuch
of Morningside Place

Susan Malloch
of Terlane Avenue
loves it all

William Dancer
of Sherwood Road
is interested in birding, marine, wild flora

Deirdre Giles
of Rattenbury Place
is in the birders group — just beginning/learning

Maddy Kowalyshen
of Farhill Road
lists protecing wildlife habitat i.e., eagle nest sites and coastal green space as interests

Alan and Susan Lea
of Dover Street

Gordon Fenske
of Scott Street
likes nature photography, scuba diving and birding (just starting)

MARCH

Linda and Shane Funk
of Ash Road
are interested in marine biology, botany, natural history interpretation and birding

Nicole Wallace
of Prentice Place
is interested in marine biology and natural history

Gene Hannon and Kimberlee Chambers
list entomology, natural history and traditional ecological knowledge as interests

Debi Vandenbrink
of Grant Road
enjoys birdwatching, marine sciences and conservation of wildlife

Maureen Burke
of Windermere Place
likes birding, hiking and botany

VNHS Members Honoured

At the VNHS annual banquet, held at the Princess Mary restaurant, two members were honoured with the Society's Distinguished Award.

Tony Embleton was recognized for his long service as the representative at the Federation of B.C. Naturalists, and as the Society's Parks and Conservation Chair. In particular, Tony was the driving force behind the Society's database of significant natural areas, and brought into being a vision of site by site inventories by VNHS members.

Dorothy Henderson received her award for her behind the scenes involvement over many years, and specifically for her efforts to keep in touch with those Society members who were elderly, or sick, or otherwise in need of assistance or moral support. In an organization as large as the VNHS, these quiet contributions help to tie us together as a family of naturalists.

David Allinson with Tony Embleton (right above) and Dorothy Henderson (below). *Photos*: Bruce Whittington

VNHS Receives Greenways Award

The Society has been chosen by the Provincial Capital Commission to receive a 1999 Greenways Achievement Award. Commission Chair Pam Charlesworth congratulated the Society on "its continuing efforts to understand, conserve, restore, and inform this region's residents about the significance of our natural history." The award was presented on April 21st at the PCC's Annual Spring Service Recognition Dinner at the Crystal Garden, and was accepted on behalf of the Society by President Bruce Whittington.

CALENDAR OF EVENTS

REMINDER: most of the regular meetings of the VNHS are not held during the summer months. The Natural History Presentations are now finished but will continue again in September.

REGULAR MEETINGS are generally held on the following days. **Board of Directors**: the first Tuesday of each month; **Natural History Presentations** (formally known as the General Members Meeting): the second Tuesday of each month; **Botany Night**: the third Tuesday of each Month; **Parks and Conservation Committee Meeting**: the third Wednesday of each month; **Birders' Night**: the fourth Wednesday of each month; **Marine Night**: the last Monday of each month. Locations are given in the calender listings. Telephone the VNHS Events Tape at 479-2054 for further information and updates.

MAY EVENTS

Saturday, May 1
Spring Birding with Kevin Slagboom
Bring your hiking boots and join **Kevin Slagboom** for a walk up Broadcast Hill and down to Viaduct Flats. Migrants should be plentiful, and the flats may turn up a good mix of waterfowl. Meet at the Layritz Park parking lot at 7:30 a.m. For information, call Kevin at 658-0940.

Sunday, May 2
Spring Birding at Elk Lake
Bruce Whittington leads this CRD Parks walk, in search of spring migrants and returning breeding species. The opportunities for good looks at warblers and vireos are excellent, and this location in May is surprisingly reliable for swifts overhead. Meet at 7:30 a.m. in the Jennings Lane parking area, which is the small lot to the south of the rowing centre parking lots on the Pat Bay Highway at Elk Lake. Access is possible only southbound on the highway, but you can enter the rowing centre lots northbound to turn around.

Tuesday, May 4
VNHS Directors Meeting
Swan Lake Nature Sanctuary, 7:30 p.m.

Saturday, May 8
Spring Bird Count
For information, call **Maureen Funk** at 477-6957.

Sunday, May 9
Birding at Witty's Lagoon
Gordon Hart and **Dannie Carsen** lead the way at one of Victoria's spring birding hotspots. It's a peak weekend for migrant songbirds, and the lagoon may produce a nice mix of waterfowl in their breeding finery. Meet at the nature house trailer in the parking lot on Metchosin Road, at 7:30 a.m. If you need more information, call Gordon at 721-1264.

Saturday, May 15
Royal Roads/Esquimalt Lagoon
Join **Dannie Carsen** on a search for spring migrants at Royal Roads grounds and Esquimalt Lagoon. We will start at Royal Roads at 7:00 a.m. sharp, and for convenience you can park in the lot next to the Cafeteria. Bring a loonie for parking, snacks and a drink, and wear good walking shoes. We'll take two to three hours to walk through the ponds, along the western shore of the lagoon, up the trail to the road, down to the south end of the lagoon via Lagoon Road, north along the road to the far end, over the bridge and up the hill where we head south again to end up near the gazebos where we can stop for a snack. Phone Dannie at 727-0155 for more information.

Sunday, May 16
Wildflowers on Benvenuto Hill
Andy Mackinnon, co-author of *Plants of Coastal B.C.*, and a HAT director, leads this walk to a newly protected Garry Oak wildflower park in Central Saanich. It's a beautiful spot with a panoramic view. Access is via Wallace Drive, south of Benvenuto (the road to Butchart Gardens). Take the new paved road up the hill into the new subdivision, and look for an obvious fenced chip trail which goes up the hill. Meet at 9:00 a.m.

Saturday, May 22
Birding by Ear With Hank
It's a tradition for **Hank VanderPol** to lead this early morning walk, which is designed to help birders improve their bird song identification. All the breeding species should be on territory and singing by now. The four-hour trip will cover a variety of habitats, beginning in the parking lot at Layritz Park, off Glyn Road, off Wilkinson Road. Meet at 6:00 a.m. For more details, call Hank at 658-3482.

Sunday, May 23
Mount Newton South Slope Birds
The mixed woodlands of Mount Newton offer excellent late-spring birding, with some specialties like Mourning Dove. **Sheila Mosher** and **Cheryl Mackie** will lead this field trip, which has a 7:00 a.m. start, to take advantage of cooler morning conditions. Meet in front of the old Saanich Fair site, opposite the Moose Hall on East Saanich Road, north of Wallace Drive in Saanichton. There's a coffee place and a doughnut shop in Saanichton. Phone Sheila at 652-3502 if you have questions.

Saturday, May 29
Hagan Creek/Kennes Watershed Project Open House:
Voluntary Stewardship Program., from 10:00 a.m. to 4:00 p.m. at St. Stephen's Church Hall (next to 1049 Mount Newton X Rd) — look for the signs! Stewardship displays, watershed tours, activities for kids, coffee and munchies. You don't have to live in the watershed to enjoy a great day in the beautiful Mount Newton valley! For information call **Misty MacDuffee** at 363-6837 or **Bob Thompson** at 652-4691.

Saturday, May 29
Bowker Creek Clean up and Rubber Ducky Race
The second annual Bowker Creek Clean up and Rubber Ducky Race will take place on Saturday May 29th from 11:00 a.m. - 3:00 p.m. The clean up will be from 11:00 a.m. - 1:00 p.m. The rubber ducky race will be held between 1:00 p.m. and 1:30 p.m., the mechanical duck race will be held between 1:30 p.m. and 2:00 p.m. The mechanical duck race is an opportunity for all you engineering types to make a duck that will win. There are no rules or dimensions other than, you may not throw anything from shore and it must be completely environmentally safe. Nothing may leak into the creek. The awards ceremony will begin around 2:00 p.m. On the day you will enjoy live music, food, juice, coffee, various displays and a lot of fun. For all you kids out there, you have a great day ahead of you. There will be puppet shows, face painting, a spot where you can learn how to make origami ducks, sidewalk chalk art, a drain marking program and a paper boat race. You will be able to learn how to construct a paper boat and then you can test its speed by sending it down the creek. For those of you who would love to help out but don't feel like being involved with the cleaning of the creek please bring some baking for the baking tables.

Ducks cost $3.00 for children and $10.00 for adults. They can be purchased by phoning 592-9431. (Once you buy a duck it's yours.) For those of you who have a special rubber ducky or have one from last year the entry fee is $7.00. All the money raised will be used for further restoration of the creek. Looking forward to seeing all of you on May 29th. Phone **Maia Green** at 592-9431 for any questions you may have.

JUNE

Tuesday, June 1
VNHS Directors Meeting
Swan Lake Nature Sanctuary, 7:30 p.m.

Sunday, June 13
Beach Seine at Bamberton
The birders are crazy. Meet marine biologists **Marilyn and Phil Lambert** at a civilized 10:00 a.m. for an up-close look at marine life. A very low tide means a nice diversity of critters. Meet by the change rooms in Bamberton Provincial Park, at the north end of the Malahat drive. The trip will last 2-3 hours.

BULLETIN BOARD

June Bird/Whale Watching Experience
Anyone interested in joining a number of keen birders on a bird/whale watching experience? I have relatives coming in June who are keen, so I have spoken with Seacoast Expeditions about setting up a three hour, early morning trip, sometime in mid-June. They need at least six people to make it viable so I need to find a few more. The cost would be $69.00 per person, and there would be a knowledgeable naturalist on board. The focus would be on looking for birds, although we would almost certainly be joined by some whales at some point during the trip. We would probably make the run on a weekend morning to accommodate other participants, although it wouldn't matter to us, and that's adjustable, as is whether we go in the morning or evening. Anyone interested could either contact **Anne Lowan** at 744-1378, or E-mail me at jalowan@home.com, or call Seacoast Expeditions. Please call or e-mail me if you need any more information.

Refreshments Needed for Natural History Night
Second Tuesday of every month — starting in September. Wanted two ladies to share this worthwhile experience. Tea, coffee and cookies. **Barbro Baker** will continue to provide for Birders Night — fourth Wednesday of every month, but can no longer provide for Natural History Night. We need you! Many thanks to our previous ladies who so ably provided refreshments over the past five years for Tuesday Evenings — **Audrey Copping** and **Joan Gowan**. Also many thanks to **Barbro Baker** for her continued support. We welcome any food donations i.e., home made cookies or cakes at these events.

The Victoria NATURALIST

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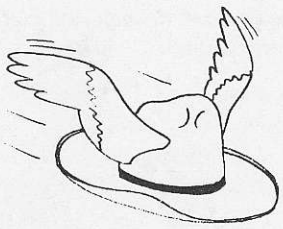

Join us for one or two evenings of entertainment in a coffeehouse atmosphere

HATs Off for the Tod Creek Watershed

featuring the talents of watershed residents and HAT Directors and friends

Friday, June 4

Musical HATs '99

featuring the talents of naturalists, biologists, conservationists and other assorted nature nuts

Saturday, June 5

If you have an item to donate for the raffle, please call Jenny Eastman at 744-1710

The venue for both events is Prospect Lake Community Hall, 5358 Sparton Rd. **Doors open at 7:00pm. Entertainment starts at 7:30pm.** Tickets: $10.00 each available at Members' and Birders' Nights and at the Field Naturalist.
Further information: HAT office, 995-2428.