

Swan Lake Christmas Hill Nature Sanctuary - 2011 Annual Executive Director's Report

Highlights of the year:

Fund Raising Activities

The Municipality of Saanich remains the primary support for the Nature Sanctuary's operations through its annual Management Fee as prescribed in the Land Management Agreement. This core support provided over the years by Saanich Municipality has been vital to our success.

The Bridges to Nature capital campaign to replace the aging floating boardwalk system was put on hold pending the development of detailed engineered blueprints and a cost estimate for construction. Steve Hoel (JSH Engineering) is provided the design, and Beacon Construction Consultants agreed to provide the cost estimate for a rate of \$70/hour, which is half the regular price. This process included some improvements to the original design, resulting in a new cost estimate for construction of \$970,000. It was decided that a foundation of increased community awareness of the Nature Sanctuary and the boardwalk project must be the first priority in re-activating the capital campaign. Despite the lack of a formal capital campaign, the Sanctuary realized \$33,400 of revenue during 2011, including \$10,000 from Saanich as its first installment of \$100,000 pledged over a four-year period.

The Native Plant Sale continues to be our signature fund raising event, one that promotes our values of encouraging the creation of wildlife habitat in urban spaces, and that contributes significantly to our budget.

The Spring 2011 sale was not our most successful ever. About 4,000 of the 6,000 plants were sold during the two-day event, with an additional 1,300 plants being sold over the following weeks. Our third annual Fall Native Plant Sale in October was less successful than the previous year's sale, reflecting a similar drop in native plant sales in nurseries throughout the region. Still, between the two sales, a total of \$21,800 net profit was realized.

Other grants received during 2011:

The Victoria Foundation, City Green, the CRD's GreenStart program and BC Hyrdo's Product Incentive Program provided funding and support for a Nature House Greening project.

The Nature Trust of BC approved an application for funds to construct a new welcome sign kiosk on the site of the current welcome sign. The facility will promote the Nature Trusts' work in this area, including the Nature Sanctuary land owned by The Nature Trust. BC Greenroofs Consulting agreed to provide a donation of services toward the project. Detailed plans are to be done in January with installation to be completed in March of 2012.

A Gaming grant of \$40,000 was received in 2011 in support of our education programs, and additional revenues were realized from memberships (\$18,650) and miscellaneous donations from the community (\$15,215).

Facilities

The Nature House was closed for a couple of weeks in early summer to allow us to carry out some much-needed upgrades, as part of the Nature House Greening project. Probably the most noticeable change is the new flooring. We removed the 23-year-old carpets in the display area, library and classroom (they have served us well) and installed a vinyl planking that looks great, has a 60% recycled content, and is 100% recyclable at the end of its life. Dismantling, moving and re-installing the displays that have been in place for 23 years was a challenge, but the results were well worth the effort.

While the Nature House was closed, we also upgraded the fluorescent lighting system to more efficient fixtures, replaced all incandescent lights with fluorescents, and installed low-flush toilets and low-flow taps.

The greatest concern of 2011, the condition and maintenance of the floating boardwalk, was addressed by the removal and replacement of beams and planks to strengthen the structure until future replacement. Signage was developed and installed to raise public awareness of the boardwalk condition and to reduce jogging on the boardwalk. All wood used is Forest Stewardship Council Certified and purchased from growers on Vancouver Island.

Work focused this year on the maintenance of trails, the nature house, and materials through activities such as:

- Removal of deteriorated Willow Bridge
- Construction, installation, maintenance of stairs at Willow Bridge
- Removal, replacement, construction of materials, beams, development and installation of signage for floating boardwalk
- Nature House maintenance such as removing leaves from roof, painting, repairing, replacing, broken or worn materials including lights and insulation,
- Monitoring, clearing, creating drainage around lake trail
- Trimming, removing, vegetation along lake trail
- Repairing, weeding, leading crews to maintain trails on and to Christmas Hill
- Removing, hauling, chipping invasive plant material
- Ordering, hauling, spreading trail materials such as rock, gravel, chips on lake and Christmas Hill trails
- Surveillance, reporting, and removal of campers from sanctuary grounds including removal of waste and needles with assistance of Saanich Police
- Construction and installation of shade roof in work yard
- Maintenance of tools and equipment such as mowers, power, and hand tools
- Mowing trail edges in spring and summer
- Upholding bylaws by addressing dog walkers and bike riders with Sanctuary grounds
- Removal of graffiti and replacement of damage to footbridges, signs.

Ecosystem

Three events of great importance occurred this year; the completion and receipt of the Christmas Hill Management Plan by Brenda Beckwith, spawning by two Coho salmon in

Blenkinsop stream witnessed by the site manager, and a fish kill of major proportion including that of cutthroat trout over 40cm in October, 2011.

Receipt of the Christmas Hill Management Plan in addition to the Lake Habitat Management Plan by Lise Townsend in 2010 provides the required guidance for restoration and management initiatives to move forward in a planned manner. Both documents are now the basis for developing work plans for the year 2012 and beyond, which will assist with the coordination of funding applications and resources.

Positive identification of cutthroat trout and Coho salmon is the first since 1985 and is of great importance for stream and lake restoration activities which will give us access to fish habitat enhancement programmes for 2012 onwards. Fish presence spurs efforts to enhance the physical and ecological structure of our streams

Restoration in the Sanctuary focused on completion of our obligation to the Evergreen Foundation for reforestation of upland and wetland areas around Swan Lake. Five sites were prepared for restoration by removing invasive plant material, preparing soil, recording condition, preparing planting plans, and developing a volunteer engagement program. Clearing was done with heavy equipment and by hand in appropriate areas. Hundreds of native trees and shrubs were planted with the help of community volunteers including elementary students from Glenlyon Norfolk and St. Michaels University schools, community and church groups, and those who responded to a call for volunteers in October and November.

Specific restoration activities included:

- Removal of Common Hawthorn from areas within the hedgerow MU 23 and along Swan Creek MU 3 and installation of native shrubs including Black Hawthorn and Twinberry
- Clearing invasives from the lot at Lancaster and Haynes in MU 4b in preparation of a facilities materials storage yard, Neighbours were consulted and informed of the project which will include installation of native shrubs and wooden fence in 2012.
- Clearing Himalayan Blackberry and Canada Thistle patches from three locations in MU 16 and MU 21 between the Lake Trail and Saanich Road in preparation for fall planting. Native trees such as Douglas fir, Garry Oak, and Arbutus and shrubs such as Nootka Rose, Ocean Spray, and Oregon grape were planted in the restoration areas this fall.
- For the fourth year, the wetlands in the MU 20 northeast section of the lake were mown by the District of Saanich and for the first time in many years a Western Meadowlark was sited. This area continues to provide needed overwintering habitat for migratory birds and hunting habitat for owls and raptors who feed on raptors. Funds for mowing must be included in future budgets.
- Knotweed control on Blenkinsop Stream continues in collaboration with the CRD and the District of Saanich.
- Invasive plant removal, wetland pond installation and restructuring, and revegetation of trees, rushes, sedges, and semi-aquatic plants occurred in the MEC/Manna grass area MU 23 with the help of community members
- Continued restoration of the Hedgerow through invasive plant removal and planting of native trees and shrubs, over 50% of ivy on south side of trail is now

removed. Most invasive plant material is removed by Community Service Workers.

- Broom removal on Christmas Hill continues in the traditionally cleared control area of the South Face, vernal pond, and burn area, along with continued thatch removal within the Montane violet area, and monitoring and invasive plant removal throughout
- Orchard grass was removed in some areas of Christmas Hill with replanting of appropriate native grasses in the winter of 2012
- Work continues in Nelthorpe field with planting of native flowering plants, alders, and shrubs with new buds occurring in Feb 2012.
- The Western Painted Turtle Project continues with the guidance of Christina Engelstaft and Kristiina Ovaska with weekly telemetry monitoring, maintenance and wildlife camera monitoring of the turtle nesting area, and inclusiveness of Camosun and UVIC students. We watched one small turtle leave the nesting site for the lake in June. Telemetry is teamed with weekly water temperature sampling of the lake. Hobo data loggers assume this role in 2012.
- The water quality program was underway in collaboration with consultants, MOE staff, and volunteers to find appropriate sampling and equipment and methods including testing equipment and training volunteers. This program is in moving quickly forward in 2012.
- Work in the native plant garden continues with a focus on providing examples of plants sold at the Native Plant sale, varieties of flowering plants, ferns, and native grasses. Volunteers work in the garden Friday afternoons 1-4 weekly.
- The plant propagation program produced numerous native shrubs for restoration from cuttings and native grasses and forbs from seeds harvested on site and traded from other keen growers such as Louis Goulet.

Site Community Outreach

Outreach continues to be a focus of site management as volunteer involvement provides the key labour force, provides students with research opportunities, and engages experts in many levels of site operation. Community Service Workers contributed 1243 hours as site workers while regular site volunteers contributed 2406 hours. Neighbours were consulted regarding fencing, invasive plant issues, and boundary issues. Informing dog walkers and bike riders of bylaw infractions and answering questions of the public are consistently part of the process of public information. Volunteer organization and recruitment is a focus and will be stepped up in 2012 with new programs and training available.

Site Research

Research included the affect of algal toxins on Western Painted turtles, invasive plant control methods specifically for manna, reed canary, and orchard grasses, common hawthorn, and plant propagation in Garry Oak ecosystems and applications for/to Swan Lake

Site Presentations and Community involvement

Parks and Protected Areas Forum BC Parks – Use of Wetland Installations for the Purpose of Manna Grass Control and Habitat Development

Education Services

The Education Program at Swan Lake continued to build on the success we enjoyed in 2010. A total of 21,384 people took part in 706 programs in 2011, a 5% improvement over last year's record-breaking results (see Figure 1). Education program revenues showed a similar increase: a 5.5% over 2010 - 32% in the past 4 years (see Figure 2).

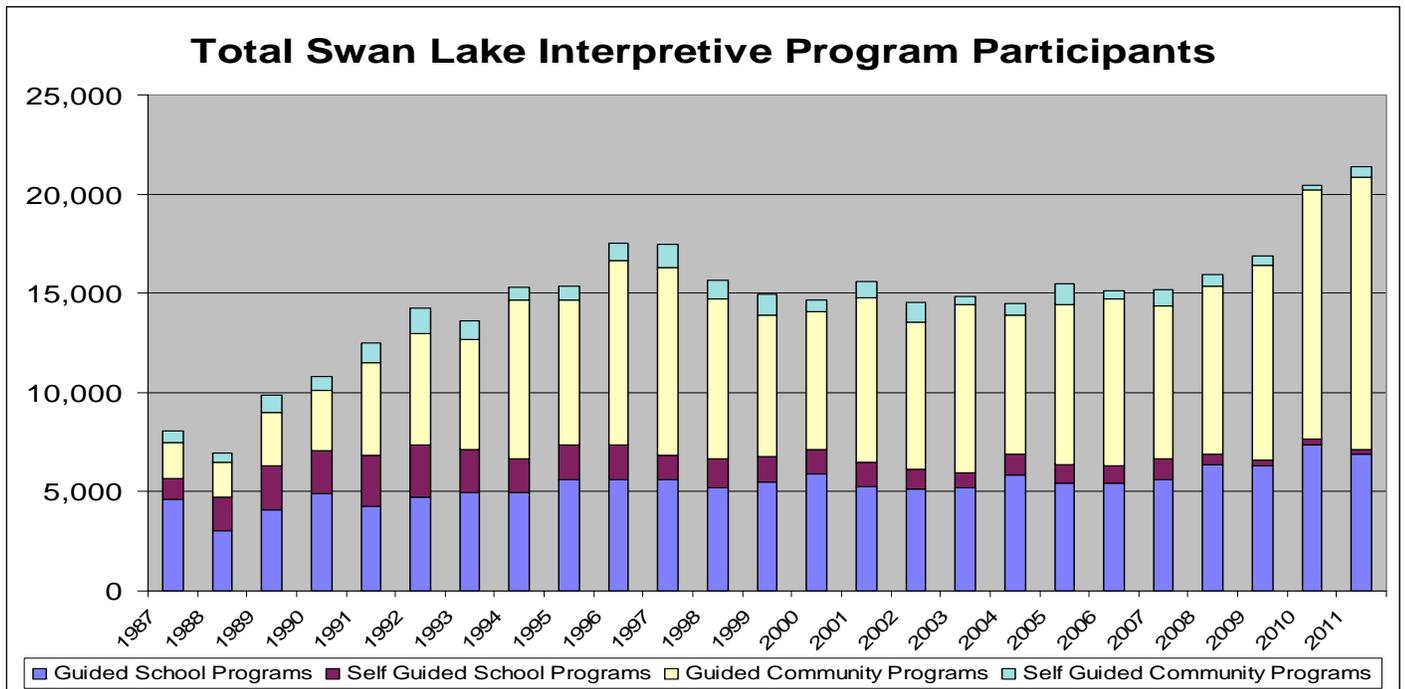


Figure 1

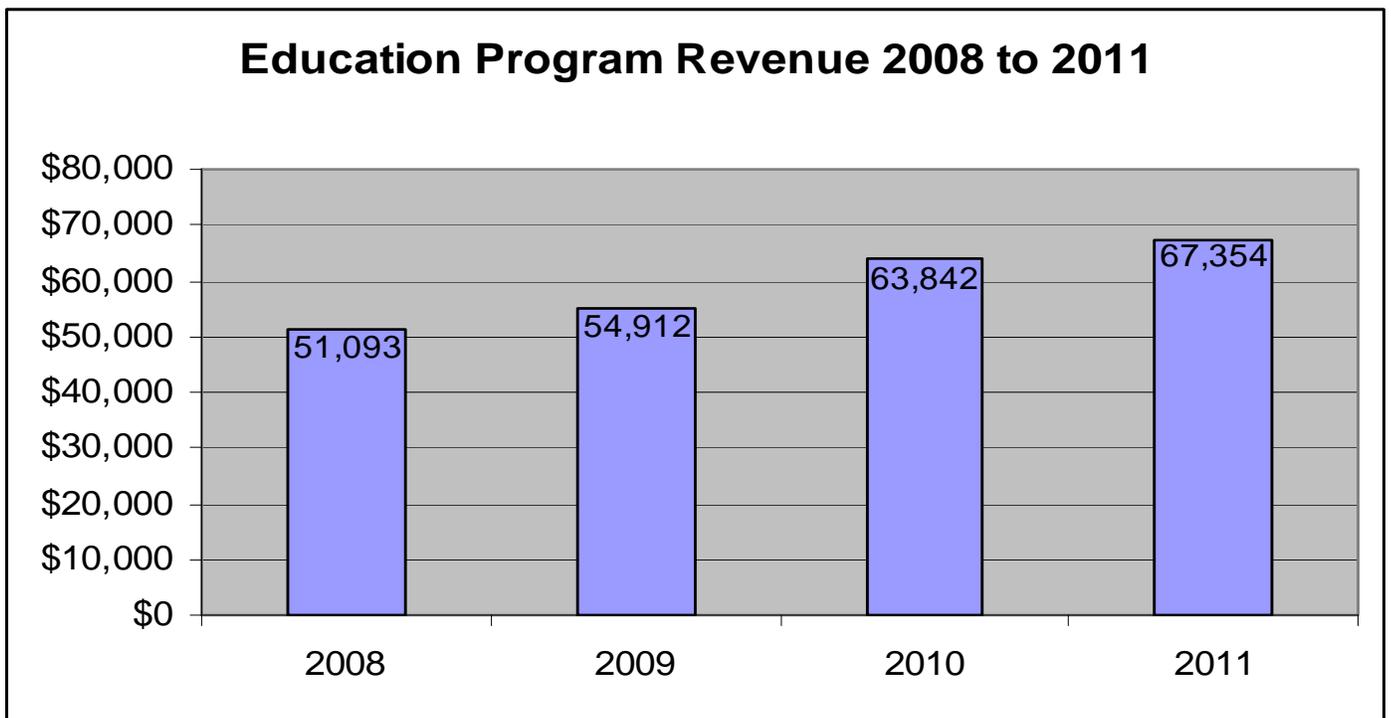


Figure 2

School Programs

Swan Lake's school programming continues to be popular with local teachers. Both verbal and written feedback is universally positive. Despite this we experienced a slight decrease in school programming subscription from 276 programs in 2010 to 260 this year (see Figure 3). This is primarily a reflection of the contract dispute teachers are currently engaged in as our spring program subscription (when there was no job-action by teachers) is slightly up over the previous year and our fall programming numbers (when the job action was in place) are down approximately 10%.

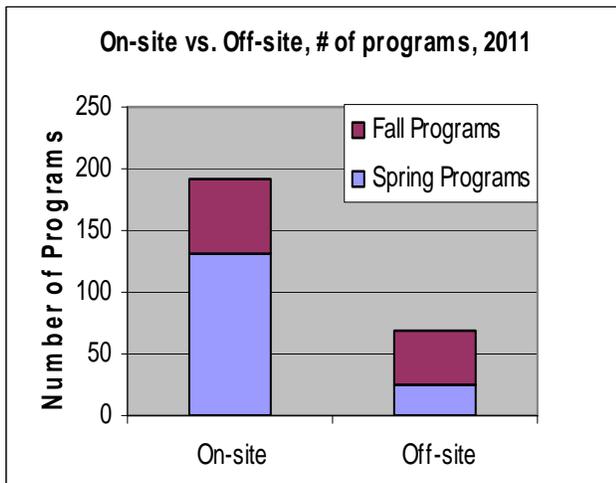
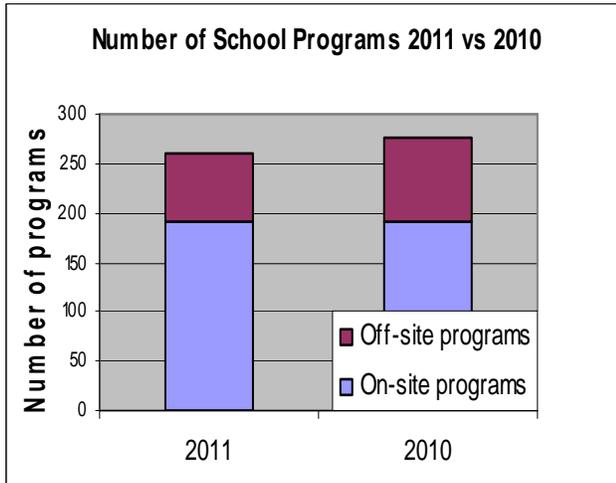


Figure 3

Figure 4

As teachers escalate their job action in 2012 we anticipate a greater impact on school program participation. We are endeavoring to mitigate the effects of this by more aggressively marketing our in-school programs (while most schools have prohibited field trips, class visits by outside groups are still permitted by many) and by developing and marketing programs to alternate markets (ie. pre-schools and seniors groups).

Considering the increasing challenges that teachers face in arranging field trips and in-class visits (lower discretionary school budgets, new regulations against collecting fees directly from students, new regulations on transporting children, challenges of arranging volunteer parent

drivers, etc.) we are gratified by the upward trend we have noted in our school program numbers over the past three years.

In part this is due to adopting a more visitor focused approach to program management. By developing an in-house programming booking system we not only saved \$800/year in service fees, we were also able to be more flexible in meeting teachers' needs and accommodating tight classroom schedules. We look for ways to accommodate a teacher's request rather than looking for a way to fit them into our system. Consequently, we receive many comments from teachers about how quick and easy the booking process has become and how much they appreciate our flexibility and our willingness to adjust to any special needs they may have.

While most informal education agencies in Victoria (CRD, Goldstream, RBCM, Shaw Ocean Discovery Centre) have seen in significant decreases in program subscription over the past five years, Swan Lake has seen a 24% increase in school program participants and a 31% increase in school program revenue.

In 2011 we added one new program to our programming roster. Many teachers have expressed interest in our wetland programs, but are not able to bring their students to Swan Lake. Thanks to a grant from Capital City Trust this autumn we developed a travelling program that brings the wetlands to the classroom. *The Portable Pond Program* was held 4 times in 2011 and 5 bookings are already in-place for 2012.

Kindergarten and grade 1 programs are by far our most popular. In the fall of 2010 we developed a new program for this age group, *Daring Ducks*, which saw program subscription rates almost double in 2011. This year we have also developed a new program for this demographic; *Turtle Tales and Frog Fables*, a program on the amphibians and reptiles of Swan Lake that is suitable for Kindergarten through grade 3 and will be available in the 2012 School Programming season.

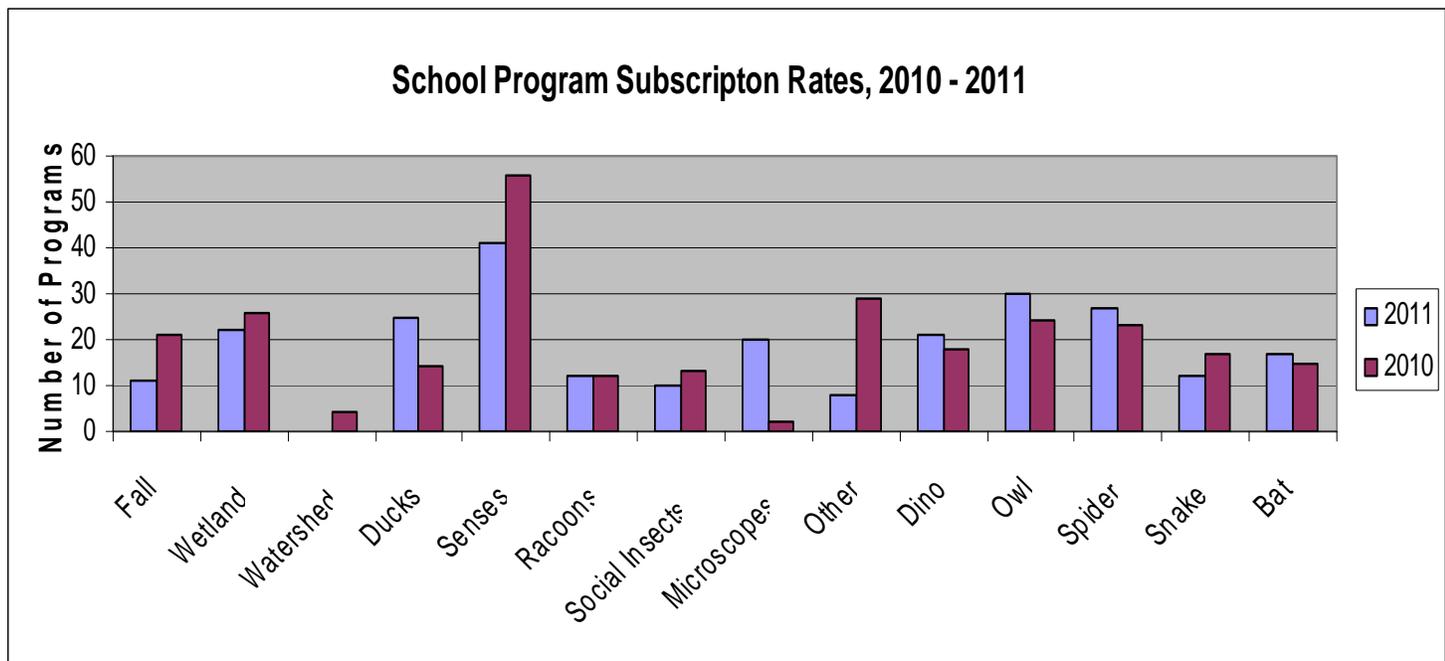


Figure 5

When examining the subscription rates of specific programs (see Figure 5) we've noticed some interesting trends:

- By making our 'traveling' programs (Dino, Owl, Spider, Snake and Bat) also available at Swan Lake, with one exception, subscription rates for all of these programs increased in 2011.
- After many years of declining demand for our *Watershed Program*, no bookings at all were made this year. Traditionally, Middle Schools have proven to be a difficult market to reach with informal education programs. After consulting with Middle School teachers it appears the content of the *Watershed Program* does not have a good curriculum fit for these grades and will be discontinued next year.
- The response to the *Microscope Discovery* program this year demonstrates that Middle School programs can be successful if they have good curriculum connections and provide 'real world' application for classroom studies. In 2012 we will explore opportunities to expand program offerings for middle schools.
- In its second year of being offered, *Daring Ducks* continues to build an audience, partially at the expense of other programs offered to its target demographic (ie. *Awakening Your Senses*). Over time we expect that the demand for programs available for Kindergarten and grade 1 classes (Ducks, Senses and the new Amphibian/Reptile program) will even out.
- Our *Wetland Discovery* program received sponsorship from RBC in 2010 that subsidized the cost for schools. The drop in demand for this program in 2011 likely reflects a lack of sponsorship available this year. A grant proposal has recently been submitted to RBC; we are hopeful that funding will be restored in 2012.
- The significant decrease in participation in our *Falling for Fall* program in 2011 likely reflects the consequences of a poorly designed program. With poor curriculum connections and three program elements that don't present a cohesive story, this program is feeling the effects of competition. For many years it was the only program we offered for grades 2 and 3. Now that many of our other programs have been modified to make them suitable for this age group we see demand moving away from *Falling for Fall*. In 2012 we will evaluate what to do with *Falling for Fall*: retain the existing program for a core of loyal teachers that demand it; redevelop the most successful elements of the existing program; or develop a new fall (or year-round) program for grades 2 and 3?

Children's Programs

Thanks to the commitment and dedication of our staff we've have been able to maintain the expanded level program delivery of our very popular *Biology Buddies* and *Homeschool Science* programs. One hundred and two Biology Buddy programs took place this year with 796 participants, only one less than last year and we were able to offer 4 more *HSS* classes than in 2010 for 290 students.

We continue to have difficulty attracting participants in our weekend children's classes. Only 13 classes had sufficient registration to be held for 100 *Nature Explorers* - a modest decrease of 10% over 2010. In 2012 we are going to redirect our staff resources by offering nature programs for children **and** their parents. Our *Big and Little* programs have been very successful in the summer months (232 people took part in the 9 programs held in July and August) and we hope to generate similar demand year-round.

The Birthday Party program continues to be a big hit. We saw a 33% increase in demand in 2011 – we hosted 46 birthday parties for 989 people. An exciting ancillary benefit of doing Birthday parties is many of the families invited to the parties have never visited Swan Lake before

All Age Programs

Our strategy to maintain consistent scheduling of our Special Event programs continues to build our audience for these programs. Scheduling these events on the last Sunday of the month and every other Thursday in the summer makes it easier for our visitors to anticipate and plan their participation. In 2011 we hosted 19 special events (the same as 2010) but attracted 3,783 visitors a 14% increase over the previous year. We definitely think there is room to grow, especially in the winter months. In 2012 we will be working to build a consistent team of volunteers that can help us expand the activities available at each event and create a festival atmosphere to encourage greater participation.

An important component of our work is to support the efforts of like-minded organizations in the community. Each year we host celebrations initiated by local natural history societies and participate in community events which this year included the Victoria Paleontological Society's Fossil Fair, the VI Mycological Society's Wild Mushroom Fair, Saanich Sun Fest and Folk West to name a few. In total we took part in 10 events, reaching 3,820 people, a 24% increase over 2010. We see these events as an excellent vehicle for reaching out beyond our physical borders to make a greater impact in our community. In 2012 we will be redoubling our efforts to participate in off-site community events by building a dynamic team of staff and volunteers to bring a fun, engaging presence wherever we go.

Adult Programs

We continue to provide a diverse variety of courses: which included Native Plant Gardening (sponsored by CRD), Advance Native Plant Gardening, Marine Birds, Beginning Birding, Dragonfly Watching, Mason Bee Condo Construction, Native Plant Garden Design and Mushrooms. However, 2011 was a disappointing year. Although we offered more courses than last year, several were not able to attract the minimum number of participants required. In total 33 individual classes were held for 608 participants, a slight decrease from 611 people who took part in 30 classes in 2010.

It is extremely challenging to get the word out about our adult programs. We depend almost exclusively on free media listings and any editorial coverage we can attract. We hope to improve subscription to our adult courses by redirecting our advertising budget, which is normally used to promote our children's events, to promoting continuing education programs for adults instead.

One positive outcome from last year is that we are attracting more instructors interested in partnering with Swan Lake. For 2012, in addition to our previous catalogue we have added a course on macro-photography, art and nature, star-gazing, and an expanded selection of mushroom identification classes.

We had excellent participation in our volunteer lead, weekly bird walks. Six hundred and thirty six people took part in our Wednesday and Sunday morning walks this year – a 9.5% increase over 2010.

Volunteer Services

Volunteers continued to provide incredible support with 6500 hours of time devoted to all aspects of the operation including: site maintenance; restoration projects; special events; plant sales; board committees and administrative support.

Our partnership with the Garth Homer Society continued with our 10 regular, dedicated and energetic volunteers from that organization bagging duck food, performing animal care and maintaining the aquariums and showcases in the Nature House.

The number of international volunteers dropped this year which may be indicative of the impact of the poor economic climate on travel. We did, however, have volunteers from Italy, Japan and England.

In the fall we facilitated a series of site restoration work parties with over 50 people participating in planting trees, shrubs and perennials in the northeast quadrant of the lake area. We will continue with these types of projects as they satisfy the volunteers who prefer weekend volunteer opportunities which are “one off” projects as opposed to long term commitments.

A sincere vote of thanks goes out to all who support us through their generous donation of time and expertise.