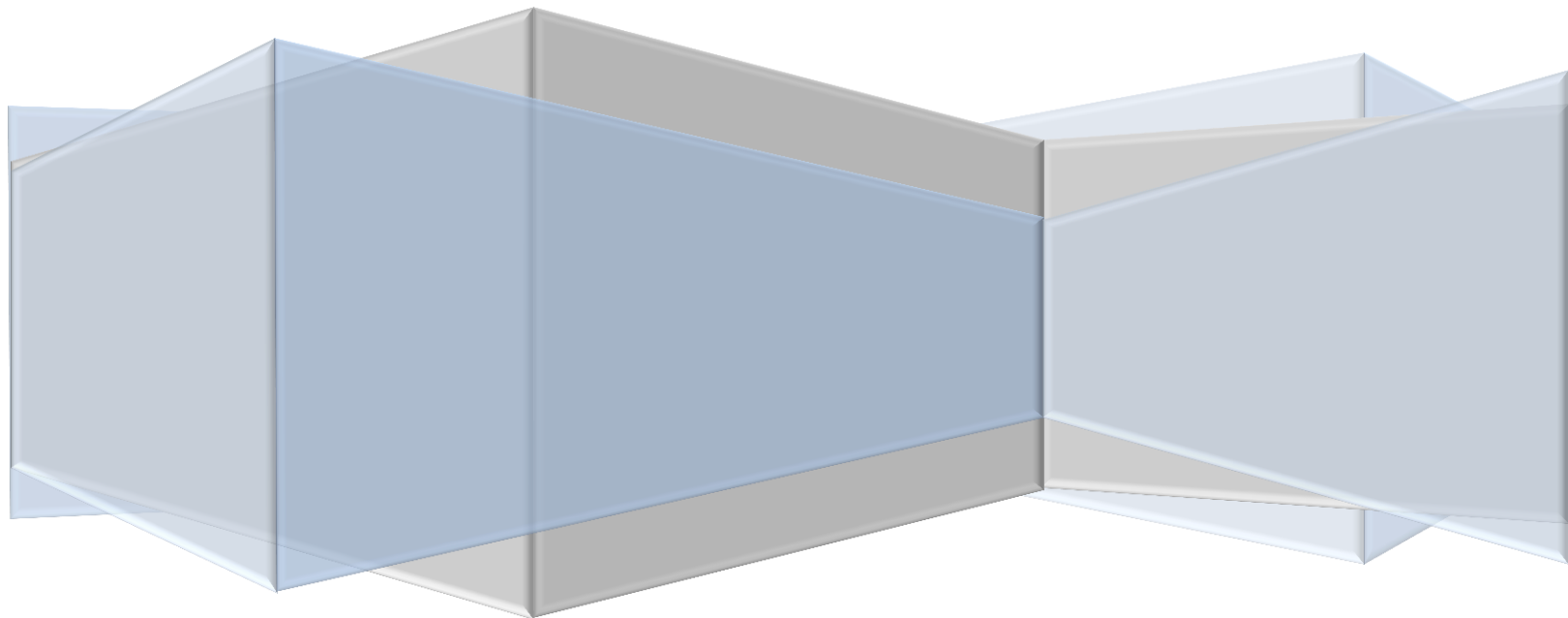




# Friends of North Saanich Parks

Annual Report December 3rd 2022

**Executive Director Sharon Hope**





Dedicated to our loyal volunteers, who this year, as in past years, guided students, observed nature and who were still ready to come back after enduring wet days and scorching heat to remove invasive species. Photos by Anne Zerrath.

# Executive Summary

We would like to thank the North Saanich municipality for its continued support of the Friends of North Saanich Park (FNSP) activities. Our summary statistics for the year 2022 include an increased general membership with axillary members to 197 while our volunteer listed membership is about 184. We had a total of 2,221 removal hours and 817 administrative hours over the year. In 2022, at an estimated \$20.00 per hour, the removal of invasive plant species constitutes a potential savings to the District of about \$44,420.00. As well, we presented the District with 5 research related reports on a variety of topics.

The FNSP designated activities for the year were: 58 Friday and Saturday main park events (some held concurrently), 46 Wednesday special afternoon events, 27 impromptu events, 27 research/assessment events, 5 outreach events, 5 high school class events, and 9 administrative meetings including of both internal and external types. This distribution resulted in an overall total of 177 activities.

In the first six months of 2022, we removed invasive plants at Todd Inlet under Sarah Jim, and took on a new Park, Prentice Pond in Curteis Point. Sidney Rotary Club members visited us in Lillian Hoffar Park which helped us clear a portion of the driveway. We assisted Kelset School to establish their own program and we had several classes from Parkland High School come to Lillian Hoffar and Green Park respectively. The transport for the students to Green Park was supported by Sidney by the Sea Rotary. During the chilly wet spring, we slogged through mud in the parks hoping for drier times. Then drier times arrived with a vengeance and we wished for cooler weather.

Catherine Campbell gave us historic photos of Lillian Hoffar Park for our records, the first taken in 1943. Our members completed a wildlife survey form for Riley Waytes, a wildlife consultant from LGL in Sidney contracted by FNSP to do a wildlife study of the parks we are working in. The results were incorporated into his report. His study was well received by the North Saanich Council and by CEO Tim Tanton. Our next study completed in June was the FNSP internal study of invasive plant re-occurrence after two years within 9, 10X10m plots. This study showed that although Himalayan blackberry and English ivy were reduced by systematic removal over two years, the numbers of Daphne seedlings came back in almost equal numbers after two years. There were very few English ivy seedlings which meant the re-establishment of ivy from seed is likely to be very slow in future.

In June, we prepared a display for the Environment Day celebrations at the Mary Winspear Centre where we encountered a number of like-minded groups. Nancy Shackelford of UVIC presented a discussion on restoration for the volunteers during our June 4<sup>th</sup> event. The talk was to highlight "Make a Difference Week". We received our registered charitable status which was made retroactive to November 2021; we prepared our receipt books under the supervision of Craig, a new member of the executive.

The first event after the July long weekend found us in Gulf View Park crawling along the ground searching for Daphne seedlings, but discovering as well, quite a number of young broom plants on the camas rocky knoll. We did manage to dispatch the broom to the best of our ability. The following weekend, we attacked Himalayan blackberry regrowth on the eastern side of Nymph Point Park. In August, Tamara our summer student and I collected soil samples in order to conduct the second set of gravimetric moisture contents for our moisture/drought study. Tamara continued to work on her soils inventory report and completed the comprehensive soil profile descriptions on September 6<sup>th</sup>. Work continued on a weekly basis in Lillian Hoffar Park where drainage artifacts were found and at Nymph Point where the numbers of Daphne seedlings slowly diminished to almost none.

We held our first in person formal executive meeting in the history of our organization on Sept. 10<sup>th</sup> where the main focus was how to solicit donations from the public and changes to the organization's website. We attacked Himalayan blackberry at Denham Till Park in mid-September with considerable success.

On September 17<sup>th</sup> the North Saanich Municipality through Ben Martin invited a speaker to discuss archeology for the benefit of FNSP; the presentation was in Lillian Hoffar Park. Consultant Erin Willows related many instances of local cultural features that were close to Lillian Hoffar Park. The talk was followed by removal work by a few volunteers. Later in October, Erin gave us a quick tour of our other parks but we discovered nothing of cultural importance at that time. Brendan, Zach and Haansen, students at UVIC joined us to complete a class term assignment to come up with strategies to make our operations more effective. In mid-September we selected a logo for FNSP. We appreciated receiving a grant from TD bank which will supplement the District funds in certain areas of our work next year. It will be used to create a new website, run off revised brochures, and buy plants for Gulf View restoration among other activities.

In October we reviewed our financial plans for 2023 to include a new brochure and employing a student or students this winter and next spring as well as making plans for revising the website. We met with Mayor Orr before he officially left office to seek some advice in our steps forward. One of our volunteers was instrumental in cutting two disks from a very large ivy stem and we attempted to age the stem. Our best estimate for one disk was about 63 years old; a disk closer to the germination point was estimated at 70. Our last event of October was in Prentice Pond Park where we met a new council person for North Saanich.

During November we met with Ben Martin of North Saanich Infrastructure Services first to discuss the upcoming Terms of Reference for the choice of a consulting company to undertake a new Parks Plan and secondly to discuss a series of FNSP areas of concern. In the first week of the month, Anne planted some indigenous species in Gulf View Park while other volunteers removed Daphne seedlings. We had several successful impromptu meetings in Nymph Point Park. Nancy Shackelford's Restoration Program graduate students assisted us in

Denham Till Park where there still is a significant blackberry presence and finally we met in RO Bull Park to walk through as the final event for the year. We held our electronic AGM in the middle of November to establish the executive for 2023. Our year end Christmas party is scheduled for December 10th.



FNSP volunteers enjoyed a well-earned rest and a chance to chat at noon while working in various parks this year. Photos by Anne Zerrath.



More all-important lunch breaks in a series of parks, a chance to taste delicious homemade muffins made by volunteer Barb. Lower photo –Todd Inlet. Top photos by Anne Zerrath.

# Annual Report 2022

**January:** During January, Anne and I visited the parks that FNSP had adopted over the past few years. The purpose was to assess the damage after various winter storms. With the exception of a hazardous snag in Lillian Hoffar which the District staff removed, the remaining parks were without significant damage. On a crisp January 15<sup>th</sup> volunteers dug Himalayan blackberry and removed English ivy at Denham Till Park. On January 21<sup>st</sup> we joined the Green Park volunteers in the north section of the park for a second removal of invasive species that were originally tackled during 2021.

In addition this month, the Friends visited Tod Inlet to assist Judith Arney's restoration group PEPÁKĒN HÁUTW. The group is conducting removal and restorative planting at the former Butchart cement plant site and within the former employees' village. Tod Inlet is also a past First Nations village location and consequently of considerable importance in terms of restoration. Under the supervision of Sarah Jim, we had a good turnout, with sunshine and mild temperatures for the season. Spaced among various house foundations, volunteers attacked H. blackberry, lemon balm and dock. Removal hours for January were 121.0 while our administrative hours were 45.0. Our account balance was \$2,165.86.



Left: Over the past six years, FNSP has collected and noted artifacts in our eight North Saanich Parks. This photo shows a cable in Nymph Point Park probably from early logging. According to aerial photos, the area adjacent was logged by 1932. Right: The photo of the frozen lower Green Park pond was taken by Anne Zerrath.

**February:** In February we had excellent response from volunteers to both our main event at Green Park and to an additional impromptu event at Nymph Point Park. Early in the month I presented our budget to the Mayor and North Saanich Council as well as presenting an overview of our activities to the Sidney-By-The-Sea Rotary Club and the Sidney Rotary Club (two separate clubs). The Sidney-By-The-Sea Rotary subsequently offered a check to cover the cost of a bus for Parkland students to reach Green Park for ivy removal. This helped us move the students to a different spot with abundant ivy.

I had received an email from Phillip Jungen the Vice Principal of Kelset School asking for help to organize their invasive species removal program on a portion of the school grounds. We agreed. Lisa Benckhuysen, a former teacher who recently volunteered to become our school coordinator, visited with Kelset teachers during February to discuss their invasive plant removal program. Phillip, the Vice Principal arranged for her to review invasive species characteristics with the teachers and to hear how the school would plan for invasive removal on their grounds. Phillip had already addressed the PAC who will assist in the project once a month. The school is purchasing tools and gloves for the students, a secure storage box and collection bins. Phillip has arranged for the municipality to collect the debris.

Students had already entered the forest to identify and code the invasive species. The school committee had adopted the idea of a removal grid with a 3x6 plan to accommodate the 18 classes. This is an extraordinary plan for a school to undertake and should be, in my opinion, publically recognized.

On February 19<sup>th</sup> the Friends initiated removal of invasive plants in a new park for us, Prentice Pond Park, located on Curteis Point. It is a saucer shaped configuration with alder, cedar and Douglas fir surrounded by residential properties. We had several neighbors turn out as well as many of our regulars for a total of 55 removal hours. We had distributed flyers in Curteis Point thanks to the efforts of two local resident volunteers and our Community Liaison Officer Mark who greeted neighbors with an introductory letter before we arrived. These actions contributed to the increased attendance.



Volunteers ousted Himalayan blackberry (Left) and ivy at the edge of Prentice Pond Park while others took ivy from the trees on the bank and dug holly. Anne Zerrath took the photo on right.

In order to gain additional work support in the parks and to conduct some relevant projects, we searched for a suitable summer student and chose Tamara B. from Royal Roads for our work beginning May 2<sup>nd</sup>. This is a position we share with the Peninsula Streams and Shores Society on a 40/60 ratio (we represented 40%). In terms of our continued natural resource information gathering, we contracted Riley Waytes of LGL in Sidney to undertake a wildlife

study this summer similar to Harry Williams' Madrone report on vegetation completed last year (2021).

A tour of Denham Till Park revealed more domestic spring flowers responding to the lack of ivy and H. Blackberry than in past years. Snowdrops were scattered throughout the eastern section of the park and daffodils were ready to bloom. We had a chilly Wednesday in Lillian Hoffar on February 23<sup>rd</sup> but, on a positive note, the ground was frozen which minimized the mud. Our total removal hours for February were 229.0 and our administrative hours were 37.5. Our bank balance was \$2,134.32.



Indigenous style carving located in Prentice Pond Park. The ivy has since been removed.



At Denham Till Park. Left: A cluster of spring snowdrops. Right: Daffodils in bud in the vintage garden section.

**March:** In March, we returned to Prentice Pond Park and had even higher attendance numbers than in the prior month, with 19 persons and a total of 65 hours. For FNPS, this was a new high for any one session with our volunteers. The Green Park group continued to removal large amounts of adult Daphne in the lower reaches of park.

In order to conduct our research this summer, I completed a work plan for the soil property descriptions, the invasive species treatment plot final removal, as well as the soil moisture/chemistry and a potential drought study using foliar analyses. The studies, except the treatment plot work, began in May. We appointed Kevin Brown PhD, a forest science consultant and former MOF employee, to address the question of potential drought stress in foliar materials within selected stands in three parks. At the same time, soil scientists Bob Maxwell and Hally Hofmeyr volunteered to assist our student with soil classification for nine soil profiles within our eight parks. We asked for their help because no professional soil scientist consultant could be found to conduct this soil study.

In mid-March trees blossomed in Lillian Hoffar Park and more lilies seemed ready to bloom in Nymph Point Park than in past years. A few members of the Pacific Soil Society executive toured several of our eight North Saanich parks to see if they would be suitable for the Society forest soils tour to be held in May. They did not choose North Saanich Parks.

On March 19<sup>th</sup> when we undertook an event in Gulf View Park, we discovered that the camas plants had reestablished in the park in areas cleared of ivy two years ago so that no restorative planting would be necessary in that spot. We have always waited some time before considering restoration because nature often addresses these issues without our help. In terms of education we have continued to send out historic photos and short articles or images of ecological interest to our volunteers.



Spring in Lillian Hoffar Park. Left: A flowering tree in the vintage garden. Right: The layered First Nations shell midden is visible under an above-ground root.

Two of our members began preparations for Environment Day to be celebrated in Sidney at the Mary Winspear on June 5<sup>th</sup>. We closed March with a respectable removal total of 265 hours and an additional 65.5 hours of administrative activities. Our account balance was \$6,479.52 supplemented with a loan of \$4,300 to cover our part of the student's salary that required submission before our NS municipal funds arrived.

**April:** During April we received our funds from the North Saanich Mayor and Council; this was most appreciated. When April brought even warmer temperatures, blossoms

flourished but we still found accumulated water covering much of Lillian Hoffar Park. Denham Till Park also proved to be wet during the spring, particularly in the western reaches.

Catherine Campbell, granddaughter of Henry Hoffar, met Anne and I in Lillian Hoffar Park in order to locate the prior placement of the garage, cottage and main house built by the Hoffar family. The land was purchased in 1943. Catherine supplied us with many photos taken as the property developed. Some of these appear in the text and in Appendix 2.

On April 8<sup>th</sup> and 9<sup>th</sup> two members of our group began Daphne seedling removal in Nymph Point, while others attended events at both Green Park and Denham Till. On April 15<sup>th</sup> Anne and I toured the flowering shrub private garden and propagation facilities owned by arborist and landscapist Danny Byrne of Above and Beyond. The garden is located on Derrick Road and it is currently open to the public for a small donation. The trip generated many ideas of how we could proceed with restorative planting once ivy and other invasive plants are removed from the majority of the parks. On the Easter weekend a few of us went back to Denham Till Park to begin a gradual sweep for invasive plants. Here I found the first Trillium we had seen in the last 4.5 years.



Historic Hoffar photos: Left: Garage, house and Morris car. Right: Building location, woodshed, cottage and the side of the house.



Denham Till Park: Left: Floyd emptied a tarp in a North Saanich bin while attending an impromptu event. Right: The first Trillium we've seen in this park in over 4.5 years.

Toward the end of the month, we hosted several Sidney Rotary Club members in Lillian Hoffar Park. Their attendance plus the addition of Kurt, a friend of Mark's, resulted in a very

large pile of invasive debris and considerable garbage taken from the driveway area. We received two Parkland High School classes in the lower reaches of Green Park and two classes in Lillian Hoffar Park which aided our general progress significantly. The Sidney by the Sea Rotary generously gave us the money to transport the students to Green Park.

To complete the month, on a rainy April 30<sup>th</sup> we had an impromptu event to remove Daphne seedlings in Nymph Point Park because this year we seemed to have a bumper crop in at least four parks. The seedbed has continued to generate seedlings following almost four years of seasonal removal. Karine, returning after a medical absence to Nymph Point Park, was kind enough to bring a dozen doughnuts. These were very popular as one might imagine. In closing the month, we totaled 238.5 hours for April and our administrative or non-removal tasks amounted to 66.5 hours. Our account balance was \$11,037.82 including the loan of \$4,300.



Several Parkland High students pose with some FNSP volunteers and their teacher at Green Park. Photo by Anne Zerrath.



Rotary Club members and other volunteers like Kurt (right), joined us in Lillian Hoffar Park for an invasive removal event located along the driveway. There was considerable garbage.

**May:** During May we initiated the research studies described earlier, including the wildlife assessment, the soil property and profile descriptions and the investigation of potential

drought stress in Douglas fir in three parks. In terms of the potential drought stress project, we particularly focused on Denham Till where the trees have thin canopies and are showing signs of distress.

In the first two weeks, Tamara our 2022 summer student from Royal Roads completed digging representative soil pits in the parks, prepared drafts of the soil pit descriptions, and assisted us by sampling soil horizons for the moisture contents as well as placing the soil chemistry samples to air dry in a greenhouse that we borrowed from one of our volunteers. The physical and chemical soil samples were analyzed by MOE's North Road Analytical Laboratory. Tamara also undertook some invasive plant removal in Green Park.

The arborist company Above and Beyond, volunteered their time to remove needle samples from the top one third of two random Douglas fir trees on each of three study sites. This was the first sampling for the foliar nutrient study. Consultant Kevin Brown conducted several foliar physical measurements as well as carbon and nitrogen analyses; a second set of foliar measurements took place in October.

On May 21<sup>st</sup> we enjoyed a beautiful day in Quarry Park, a park which has been in monitoring for some time. Although scattered Daphne existed throughout the park, there was very little ivy. Martine, the new steward for both Quarry and Gulf View, had the opportunity to become familiar with areas to be walked through in this park. On May 25<sup>th</sup> we took ivy from sections of Prentice Pond Park and saw a deer within 25 m. At the end of the month, Christine and Anne spent time removing broom along Greenpark Drive. Although roads are not part of our park system removal plan, Anne and Christine did not wish the broom to spread.

To complete our research study of invasive plants in our parks, Anne and I began harvesting seeded in or regrown invasive species from our 9, 10X10 treatment plots where the invasive biomass was completely removed 2 years ago. The plots were in Quarry, Gulf View, Lillian Hoffar, Denham Till, Green Park, and Nymph Point Park respectively. Our objective was to understand the number and density of Daphne seedlings and the amount of ivy which was still growing or re-growing on given areas following the initial removal.



At Prentice Pond Park: Left: Vern wrestled with ivy. Right: Martine (front) prepared to work on a path edge.

During this month we accumulated 209 removal hours in the parks and 13.5 hours of broom removal along the edge of Greenpark Drive. We had 72.5 hours of administrative tasks. About 25 of these administrative hours were preparing for the Environment Day celebrations at the Mary Winspear. We returned \$2,300 of our advance loan; \$2000 remains. Our bank balance was \$9251.80 that included two donations of \$500 and \$200 each from local organizations.

**June:** FNSP asked Nancy Shackelford of UVIC to give a restoration related talk on June 4<sup>th</sup> at Green Park. The presentation was part of World Environment Week. Nancy brought a visiting colleague, Loren, from Burns, Oregon who is involved in large scale grassland restoration under dry warm and dry cold desert conditions. After Loren and Nancy spoke about their work, they introduced two Restoration students from UVIC who were responsible for organizing 24 local initiatives to celebrate the Week. As Nancy and Loren outlined their work and its challenges, various interested volunteers asked questions.



Nancy Shackelford's students from UVIC's Restoration of Natural Systems Program searched to identify one of the herbs during the group lunch break at Green Park. Photo by Anne Zerrath.

The next day we rose early to man our table at the Environment Day Conference held at Mary Winspear in Sidney. FNSP displayed a power point presentation on a loop, a large professional poster of invasive species, our field sandwich board, brochures as well as a series of artifacts from the parks, tools, our calendar and our business cards. Speakers covered a variety of topics from sustainable heating to marine conservation. The Bioregional Framework was presented to the audience. It states in summary, that environmental problems are often best viewed from the peninsula or drainage level. Tiffany Joseph spoke about the First Nations environmental perspective. It was an opportunity to conduct business with those environmental groups who were present as well as to answer questions from the public. Most of the questions from the public directed to our table pertained to identifying invasive species and how to remove them.

Tamara, our student, spent some time taking broom and Daphne away near the rock knoll forming a boundary with a private residence along the southern and eastern edge of Green Park. On June 11<sup>th</sup> the Green Park group removed ivy on the southern section of the park amid bird calls and pleasant stream gurgles.



The June Environment Day event at the Mary Winspear: Left: Christine attempted an online climate change questionnaire for a UVIC student. Right: In the afternoon, Craig and Tom manned our tables. Right photo by Anne Zerrath.

Anne and I continued to remove invasive species in our test plots and were joined by student Tamara in the second week. One 10X10 plot at Nymph Point had over 8,300 Daphne seedlings which came as a surprise to us. A full report of this research project appears in Appendix 1.

In mid-June we received registered charitable status for our group. Our charitable account number, that must appear on all donation receipts issued by the Society, is 74412 2730 RR0001. We had applied for registered status in November 2021 and our status was retroactive to that date. We undertook this avenue in order to seek broader funding and to have greater scope in future that would be compatible with our organizational growth.

On June 25<sup>th</sup> we held our 3<sup>rd</sup> Annual Volunteer Appreciation Potluck lunch at Denham Till Park where we worked a bit from ten until noon and then had a very lengthy and pleasant break. Our volunteers received gifts and sat in the shade of the vintage apple trees. In addition to many pleasant chats and great food, we tallied 43.5 hours on the day and filled a large bin placed in the park by the North Saanich District staff.

A few days later, Craig, one of our volunteers, moved to a designated executive position (Director at Large) as the volunteer, donations and promotions coordinator. Craig arranged for the purchase of our receipt books so we could issue receipts for donations.

At the end of June, I circulated the completed invasive species removal study conducted by our own members to Nancy Shackelford, the North Saanich staff and to the Mayor and Council for their information. Our own members received the document as well. Nancy and

some of the FNSP volunteers replied favorably to the study. For June, our administrative hours were 88 and our invasive plant removal hours totaled 214. Our bank balance was \$5,589.14.



Volunteers (Jane left and Al right) tussled with ivy at Green Park on June 11<sup>th</sup>. Photos by Christine Richards.



Our volunteers attended the 3<sup>rd</sup> Volunteer Appreciation Potluck Lunch in June at Denham Till Park. Above left: In the park, Patrick and Kirsten removed excess lemon balm. Above right: Charlie did the same at another location. Group photo by Martin Lewis.

**July:** Our event on July 9<sup>th</sup> was in Gulf View Park to address the challenges of returning Daphne seedlings. While there we discovered broom seedlings distributed across the small camas meadow. We managed to remove these newly established invasive plants. A woman Joan, who lives across the street, was kind enough to give us freshly baked cookies as a “thank you” for our efforts in the park. She also presented us with delicious newly baked scones in September.



In Gulf View Park Jason and Anne wrestled with a laburnum sapling and Jason held up the result.

On July 14<sup>th</sup> summer student Tamara and I reviewed some of her soils data and we made plans to have her speak to our volunteers in early September at Denham Till Park concerning the soils project. Tamara completed the following tasks in July: She removed thistles at Denham Till for several hours followed by Daphne seedling removal with Anne at Gulf View and Nymph Point Parks. She also took GPS readings of the tagged trees in Gulf View Park as well as GPS readings of Prentice Pond Park for the purpose of mapping this new park addition. During July we had a total of 59 administrative hours and 110 removal hours.



Green Park volunteers (left) Donnamae and Bob posed with their debris pile and Bob (right) showed off a large H. blackberry root. Christine Richards took the Green Park photos.

**August:** In August we had an event at Prentice Pond Park where several neighbors turned out to help and we welcomed a new long term volunteer to FNSP. Our group conducted removal on the far side of the park's pond; considerable debris was accumulated. On August 13<sup>th</sup> we had a small event at Lillian Hoffar Park where we worked on the south side of the drive. By this time the soil in most of the park was extremely hard and this location was one of the few slightly damper spots. We sighted a brown rabbit crossing the drive near the end of the day.

Near the middle of the month, we invited Joey Tanney a forest pathologist with Natural Resources Canada (the Federal Pacific Forestry Centre) to determine if root rot was present extensively in the Douglas fir trees at Denham Till Park. The trees have very thin canopies and appear to be dying. The results of his assessment and those of Mike Cruikshank of the Pacific Forestry Centre were that "*Poriella subacida* is the type of butt rot, which is widespread in BC and found on a variety of conifers and hardwood species. Root and butt rot can predispose trees to windthrow and it is usually suppressed or weakened trees that are affected. The Douglas-fir trees on this site were clearly stressed, likely from drought, so finding *P. subacida* is not too surprising but given that it was found only on that one stump we can't confidently extrapolate that this was involved in the other tree mortality/decline." From this statement we conclude it is likely a secondary factor in the stand's decline with drought being a major factor for further investigation.



Anne demonstrated the height of a 12 foot sow thistle tagged for removal in Nymph Point Park.

At the end of August, I toured most of the eight soil pits with a graduate student Sarah Bird from the Restoration of Natural Systems Program at UVIC. She wished to know more about local soils. At our last August event, two volunteers removed over one ton of cut branches from Lillian Hoffar Park along the southern fence line, the result of private strata property tree trimming.

Our month end hourly breakdown was: 112 hours of removal and 43.5 administrative hours. These are lower numbers than expected but it appears that our volunteers are traveling this summer to make up for holidays missed during the height of the pandemic. Our bank balance for August was \$4634.47.

**September:** During September the weather continued to be dry and sunny. The executive had their first formal in person meeting in the history of FNSP. At that time, Mark showed us how the donations would be handled through the website and Canada Helps. This link was successfully placed on the website. We also discussed contacting our membership list for donations and a letter subsequently went out to volunteers.

In term of removal, we addressed H. blackberry in Denham Till Park, where at noon, Tamara gave information to the group about the process of conducting soil profile descriptions. I talked to two students from a class in the Restoration Program at UVIC who will help us in our operations and complete a class assignment. Oakstead Tree, Arborist and Property Care volunteered to remove the foliar samples in two of our parks to assist with our final research project sampling when Above and Beyond were not able to due to an equipment breakdown.



At the end of August, Craig and Marlies hauled tree cuttings from Lillian Hoffar Park's south fence line.



FNSP's first formal in person executive meeting. Photo by Anne Zerrath.

In early June, Ben Martin of North Saanich Infrastructure Services had offered to pay for volunteers to undertake cultural feature recognition training given by an archeology consultant Erin Willows. We held the training on September 17<sup>th</sup> at Lillian Hoffar Park. The talk was extremely informative and well presented. Erin brought samples of different artifacts from older periods and from more recent history. After the main presentation, we had a quick walk

around Lillian Hoffar but did not complete the walk to all locations where there were subjects of interest to talk about. She returned in mid-October for a tour of all the 8 parks to potentially identify cultural features there but nothing of current importance was recognized outside of Lillian Hoffar and Nymph Point Parks.

The executive members plus our webmaster Dan held a Zoom meeting to review a series of proposed changes to our website and then Dan undertook the changes. He is proposing to rebuild the website over time with a different look. I completed the second soils report which addressed the decline of soil moisture in our eight parks over the summer months; it was circulated to the North Saanich Mayor, Geoff Orr, the Council, the CEO and Ben Martin who supervises the North Saanich Parks. The report was also distributed to our volunteers.



Erin Willows archeologist gave an excellent presentation in mid-September to FNSP.  
Photos by Anne Zerrath.

I asked Simon of Monk's Office Supply in Sidney to assist in creating a grove of trees as a representative FNSP logo. The result was a hit with the executive. Dan placed it on the website and we plan to use it with our group's correspondence. We received a grant from TD bank which will be a welcome supplement to the District funds we may receive next year. These funds will be used to buy plants for Gulf View Park restoration, create a new website, and run copies of a revised brochure and among several other activities.

At the end of September Anne, Mark and I attended the Volunteer Appreciation tea hosted by the North Saanich Municipality. Most of the Councilors, the Mayor and many of the North Saanich Municipal Commissions, Committees and Board member volunteers attended. In addition there were other affiliate representatives such as individuals from the Victoria Airport Authority, Butchart Gardens and the Friends of Dominion Brook Park. It was an opportunity to find out what other groups were doing in the community or on North Saanich committees.

Our total removal hours for September were: 219.25; these hours were a return to normal totals for our FNSP group. Our administrative hours were higher than normal, however, because of the assistance Anne and I gave to various students, the variety of reports we were

involved in writing, the changes to our website, generating our posters, research investigations and employing Canada Helps as a channel for FNSP donations. Administrative hours totaled 105.5, while our bank balance was \$4,783.39.

**October:** October 1<sup>st</sup> found us at Green Park where volunteers removed H. blackberry and ivy. We were rewarded by a nice lunch hour in ideal weather and took the opportunity to sit along the shady path. We invited the Lions Club of Sidney out for a removal event; as well as the local Girl Guide units. This is part of a concerted effort to grow our volunteer pool but these two groups did not respond. We met with Mayor Orr to seek advice about our future steps as FNSP. In addition, we had a challenging two event sequence in Lillian Hoffar Park removing ivy and holly along the driveway.



Summer student Tamara got ready for her talk left and FNSP volunteer Diane right held a blackberry root at Denham Till Park on Sept. 10<sup>th</sup>. Unfortunately wasps stung three volunteers that day in two different park locations.



Left: John transferred our debris pile to the municipal bin at Gulf View Park in late September. Center: The FNSP logo. Right: Concurrently Dennis hauled ivy in Green Park. Green Park photo by Christine Richards.

During October, Al one of our long term members, went independently to Green Park to remove some very large diameter ivy stems from several Douglas fir and took two disks from one ivy stem to see if the rings could be counted. According to Tom who sanded the first disk on its narrower side, the rings showed the age to be about 53 but with compensation for the height above the germination point the age was probably about 63. The other side of the disk which had a larger diameter could be between 70-90 years and probably closer to the true germination point. Al took the second disk closer to the ground in order to count again and found it was 70 years.



Left: UVIC student Brendan worked on blackberry roots in Green Park. Right: A rusty unidentified artifact on site in Green Park near Swartz Bay Road.

We spent time in Gulf View midmonth on a cool but clear day focusing on Daphne seedling removal. A family of three and a visitor from Alberta joined us which aided FNPS progress significantly and the two daughters in the family took home a couple of small animal skulls that they wanted to study. Anne also found two artifacts which likely are of agricultural origin. During our last October event, we had a cool windy day at Prentice Pond Park where we welcomed one of the new North Saanich Council members who dropped by for a chat. Our total work hours for October were divided into removal hours of 262.25 and administrative hours of 131.5. Our remaining North Saanich funds were: \$3,799.58. The sum of \$2,563 will be paid out for our last project.

**November and early December:** Tom, Anne and I enjoyed a beautiful sunny day in Lillian Hoffar Park on Nov. 1<sup>st</sup>. Here the soil was soft enough to conduct removal easily. It was impressive to see how the vegetation had recovered after the recent rains. The next day Mark, Anne and I met with Ben Martin of North Saanich Infrastructure Services to offer some suggestions for the Terms of Reference to be used for selecting the consulting company for the upcoming Parks Plan review. On the following Saturday at Gulf View Anne planted indigenous species as part of the proposed quail habitat thicket restoration.

Anne said: "Buckets of Daphne seedlings were satisfyingly removed; windfall was cut up, cleared up, and largely dispersed in the woods as mulch to decompose; in addition 40-1 gallon potted mostly snowberry and wild rose were planted close together to create a fine thicket of

native shrubs in the years to come.” After this event I prepared the files for our electronic AGM where the next executive was elected. During the month we had several successful impromptus at Nymph Point Park.

We received two further private donations in mid-November. At Quarry Park we continued our third round of light removal; this park has been in monitoring for several years. In late November, we held a second meeting with Ben Martin and Aaron Duff to discuss areas of concern to FNSP in preparation for next year. To complete the year, some UVIC Restoration Program graduate students came to work in Denham Till Park where blackberry was the main focus for removal.

Anne said of this event: “Our Denham Till Park Event ... was, quite simply, *super!* 5 semi-mature FNSP-ers and 5 UVic students nearly filled the bin, which the District of North Saanich kindly provided, with blackberry canes and roots, some lashings of ivy and a dusting of Daphne seedlings to top it all off.” As the last event, in early December, we walked through RO Bull Park, the first park we undertook as a group. Marlies kindly offered her home in which to warm up over lunch. We appreciated it! Finally we planned for our Christmas party to be held on Dec. 10<sup>th</sup> 2022.

Our hours for the month of November and the one event in early December consisted of 227.75 of removal hours and 102.5 of administrative hours. The remaining North Saanich funds totaled \$806.38 plus several private donations.



Left: UVIC students Haansen and Zach addressed ivy and holly at Lillian Hoffar Park on the entry drive during a Thanksgiving weekend impromptu event. Green Park Centre: Some large diameter ivy stems at a tree base. Green Park Right: The smaller diameter side of the first ivy disk extracted and then aged by Tom. Centre photo taken by Christine Richards. Right photo taken by Tom Richards.



Near the end of the year, Anne planted a future thicket of drought tolerant indigenous species and waged war on Himalayan blackberry at Gulf View Park.

*Appendix 1*  
*Two Year Invasive Species Re-Occurrence Study in Selected North*  
*Saanich Parks*  
*Sharon Hope and Anne Zerrath*

## **Introduction**

The CDFmm or Coastal Douglas fir Moist Maritime subzone which is found on southeastern Vancouver Island is considered an ecologically threatened subzone within British Columbia. The subzone consists of a variety of vegetation associations including Douglas fir–Oregon grape, Douglas fir–salal and Douglas fir–Arbutus–Ocean spray. Due to climate change and the limited size of this subzone, as well as ongoing development pressures within its boundaries and the presence of invasive plant species, the CDFmm is in need of conservation, stewardship and ecological restoration. North Saanich municipality, the site of this study, lies within this subzone.

In Greater Victoria, many of the parks and natural areas contain invasive species and several municipalities such as Saanich have established invasive plant removal programs administered by trained municipal staff. These programs thus far, are primarily implemented by volunteers. Some key species removed by local volunteers include Daphne (*Daphne laureola*), English ivy (*Hedera helix*), Himalayan blackberry (*Rubus armeniacus*), as well as English or common holly (*Ilex aquifolium*). Privet (*Ligustrum* spp.) can also be found in a few specific locations such as in Gulf View Park, North Saanich.

In terms of origin, Daphne is indigenous to Europe, Algeria, Morocco and the Azores. Himalayan blackberry is native to Iran and Armenia; common English ivy is native to Europe and Asia. Common holly originates from southern Europe, northwest Africa and southwest Asia and privet is native to Europe, North Africa and Asia.

Although the North Saanich municipality has no invasive species removal program delivered by its staff, an independent group of volunteers, the Friends of North Saanich Parks (FNSP) formed in 2016-2017 to sustain the natural ecology of the municipal park system and to conduct specific restoration work in some selected North Saanich parks. Most FNSP work consists of standard invasive plant removal by hand but FNSP also has a strong knowledge gathering and educational mandate. During the last two years, FNSP initiated a step by step program to gather natural resource information involving vegetation associations, wildlife capacity and soil properties for selected parks as well as information on the invasive species found within them.

From FNSP's visual observations made over several years, Daphne, a dominant invasive species in North Saanich, produces seedlings in yearly incremental waves of almost the same numbers and density despite systematic removal of seeding adults and seedlings through

multiple clearings each year. Over a period of four years, specifically Nymph Point, Gulf View and Lillian Hoffar Parks have experienced quite dense seedling returns. On the other hand, the Society observed over the same period a decline in English ivy and Himalayan blackberry after removal in the seven parks that the Society has monitored to date, but FNSP did not have any accurate measurement of plant reduction levels. Although examination of the seedbed for Daphne and English Ivy was beyond FNSP's scope in 2020, FNSP decided to investigate some aspects of the potential invasive plant regrowth phenomenon in selected parks. FNSP installed a series of temporary plots to measure what re-occurrence might occur after high quality invasive plant clearing took place in 2020.

The goal of this study was to discover how much invasive species biomass remained after clearing and what plant types would be regenerated over two years on the plots after the initial plant removal. From the study FNSP hoped, for example, to discover how many English ivy plants could potentially re-sprout or seed in per unit area after a period of time within various CDFmm natural areas and what the nature of Daphne reoccurrence might be. The study also would indicate the thoroughness of FNSP's removal efforts during the first clearance.

## **Methods**

We established 9, 10X10m undisturbed plots chosen as representative of the main dominant vegetation association within each park. The associations were first drafted by FNSP members and then were formalized through a consultant and a student (Williams 2021, Adams 2021). Because of the relatively high initial invasive Daphne plant density within Gulf View, Nymph Point and Lillian Hoffar respectively, FNSP established two plots each in those three parks for a better understanding of plant re-occurrence; the other three selected parks with initial smaller amounts (Green, Quarry and Denham Till) contained one plot each. Visual estimates of invasive cover were conducted before removal and in 2021 using standard comparison charts (Field Manual for Describing Ecosystems, 2010).

In 2020, rigorous invasive plant clearing occurred within the 9 plots. All materials were dug out; not cut or trimmed in situ. The second digging and removal of invasive species took place in late May and early June of 2022. In 2022, FNSP members counted each plant removed and calculated the total species number per plot according to plant age categories. The main categories were: Daphne seedlings less than 2 years, 2 plus year old Daphne, English ivy seedlings less than two years and 2 plus year old English ivy. We dried the plants at 70C for three days in an oven owned by The Restoration of Natural System's Program at UVIC. The dried material was subsequently weighed and recorded according to the plant species and age.

## **Initial Cover and Year 1 Results**

Initial work was reported in our 2021 Annual Report. At Nymph Point Park the total original coverage of English ivy was about 30% in plot 2 and about 15% in Plot 1. For Daphne at

Nymph Point, Plot 1 had an estimated 40% coverage and Plot 2 had about a 60% cover. In 2021, a year after clearing, Daphne seedlings still were a presence in both plots although much reduced to an estimated 3-4% of the plot. English ivy was now a minor presence here averaging about 1 %. Although scattered regrowth of existing invasive vegetation occurred only a few new seedlings could be found.

Original invasive plant ground coverage in the Gulf View park plots was about 30% in each plot. After one year although the plots had minor Daphne seedlings in some irregular patches, ivy was only a minor component of about 1-2%. The single plot in Denham Till had only about 10% ivy prior to treatment. One year after removal, the ivy was about 1-2 %. No Daphne was found in the Denham Till plot.

In Lillian Hoffar Park the plots were a bit more complex. Plot 1 initially contained about 45% ivy but in Plot 2 the ivy was almost continuous at about 90%. Quarry's plot had initial dense ivy in areas but only moderate to low Daphne coverage. The plot in Green Park originally contained a minimum of scattered natural cover and a few adult and seedling Daphne.

## Results and Discussion –Year 2

Table 1 Individual Invasive Species Count and Weight per 100m<sup>2</sup> for Selected Parks

Park	Plot	Species	Age of Invasive	Counted Individuals	Dry Weight (gms)/100m <sup>2</sup>
Lillian Hoffar	1	Daphne	2+	5	1.01
Lillian Hoffar	1	Daphne	Seedling	61	2.03
Lillian Hoffar	1	Ivy	2+	128	460.79
Lillian Hoffar	1	Ivy	Seedling	4	1.20
Lillian Hoffar	1	Holly	2+	1	33.96
Lillian Hoffar	2	Ivy	2+	114	259.85
Gulf View	1	Ivy	Seedling	2	.14
Gulf View	1	Ivy	2+	11	25.11
Gulf View	1	Daphne	Seedling	397	18.09
Gulf View	1	Daphne	2 +	7	1.61
Gulf View	2	Daphne	Seedling	3,610	117.17
Gulf View	2	Daphne	2+	69	14.10
Gulf View	2	Ivy	2+	13	56.49
Gulf View	2	Privet	2+	15	11.66
Nymph Point	1	Daphne	2+	107	251.02
Nymph Point	1	Ivy	2+	3	22.82
Nymph Point	1	Ivy	Seedling	4	1.26
Nymph Point	1	H. Blackberry	2+	1	17.88
Nymph Point	1	Daphne	Seedling	1,079	47.45
Nymph Point	2	Daphne	Seedling	8,333	248.44

Nymph Point	2	Ivy	2+	65	191.88
Denham Till	1	Ivy	2 +	1	.54
Quarry	1	Daphne	2+	3	1.44
Quarry	1	Daphne	Seedling	63	1.48
Green	1	Daphne	Seedling	14	1.40

Total plant weights varied according to the plant age and number; the study did not record individual plant heights or other specific plant characteristics in the 2+ age category. Microsite growth factors and actual age over 2 years probably contributed to the considerable weight variation for plants in the 2+ year age category.

Although Himalayan blackberry was quite widespread initially in some parks, it did not appear with any frequency in any of the plots after 2020; there was only one Himalayan blackberry found in 2022 in the 2 plus year category and none were recorded as seedlings.

The biomass of invasive species encountered on the plots after two years was small compared to the initial tons of biomass removed from the parks in total. From Table 1 we can determine that the minimal re-visiting schedule for these parks could be at least once per year or once every two years, given we found some invasive plants in all plots. An ideal maintenance level however, could be twice per year for each park.

By 2022, there were numbers of individual Daphne seedlings across many of the plots and they were densest in Nymph Point Park at Plot 2 with an estimated 83 plants/m<sup>2</sup>. The seedlings also rebounded in Gulf View Park in both plots. Because of the seedlings' small size and non-lignified composition, the seedling numbers, although frequent at times, did not produce higher dry weight biomass than older English ivy. However, by observation, the amount proportionally coincides however with the initial density of invasive adult cover that we encountered in 2020. The number of Daphne seed brought into parks could not be determined in this study. The character of the seedbed and seed viability also remains a question for future study.

In parks with dense English ivy initially such as Lillian Hoffar Park, the dominant invasive species present after two years was still ivy. Throughout the parks the numbers of ivy seedlings less than two years was small, which points a very gradual re-introduction of this species into the parks by birds or other vectors. Because re-introduction is now assumed to be slow according to our results, regular future removal should be able to keep pace with the re-introduction process for English ivy. The numbers of initial English holly in the North Saanich parks was relatively small and this was reflected in the plots after clearing. By observation there was only a minor ivy re-sprouting phenomena (by leaves for example) but nothing is known about this process.

From these results, the greatest concern for restoration and park management, in our opinion, is the continued production of Daphne seedlings after removal. Understanding the

viability of the Daphne seedbed and the seedling tolerance to drought would be very helpful to its removal. Another aspect we believe worth exploring might be the contribution of substrate disturbance, substrate type and light availability to Daphne seed germination. The reduction after 2020 in ivy and H. blackberry in the parks demonstrates that many invasive plants could be controlled within public lands with regular hand removal and monitoring.

### **Acknowledgements**

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BC Ministry of Forests and Range, Ministry of Environment. 2010. Field Manual for Describing Terrestrial Ecosystems, 2<sup>nd</sup> Edition. 266 pp.

Williams, H. 2021. Ecological assessment of 7 parks in North Saanich, BC. Unpublished report prepared for the Friends of North Saanich Parks by Madrone Environmental Services.

## Appendix 2

Photos from the Hoffar family: Catherine Campbell, Henry Hoffar's granddaughter.



Left: Hoffar driveway 1943-1944. Right: Boathouse on the property when it was purchased in 1943.



Left: Boathouses directly below the bank in 1950. Right: Clearing the land 1944.



Left: The Hoffar house with garden. Right: The newly finished house 30 feet from the beach. Woodshed on far left.