

Comox Valley Nature  
Restoration Project 2024- Courtenay River Airpark



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## Acknowledgements

Comox Valley Nature has been active for over fifty years in the Comox Valley, and is a club affiliated with Federation of British Columbia Naturalists. Our organization is entirely run by volunteers. Within the Club are birders, botanists and nature lovers of all sorts.

The restoration group has been active in the Courtenay River Airpark for over 25 years. I am happy to say that we now have two other dedicated restoration projects involving Club members. One of these is the Vanier Oaks project involving another City of Courtenay Park. The other is the Little River Project in the Comox Valley Regional District. It gives me great pleasure to see these other restorations projects being undertaken by Comox Valley Nature.



We thank the above organizations for their continued support for our project over the years.

We respectfully acknowledge that the land we gather on is on the Unceded Traditional Territory of the K'ómoks First Nation, the traditional keepers of this land.

**Our Cover:** The blooming Great Camas was captured by local photographer Gerry Fairbrother. Gerry is a retired professional Photographer who worked for many years in the local media and now spends many hours in the Airpark capturing nature photos.

# Restoration Project 2024

## Outreach project

This was interesting year in the Courtenay River. Airpark We were finally able to do some outreach to the general public. This was cooperative effort between Comox Valley Nature and the City of Courtenay. This has been on our “to -do list” for several years but was sidelined thanks to the Covid outbreak which discouraged public gatherings.



*Figure 1: Leading a small tour of the Airpark*

The walks were led by myself and Kathie Woodley. Angela

Dawson organized them on behalf of Comox Valley Nature. We touched on the recent history of the Airpark from its time as the City’s sewage lagoon to the present. General natural history of this site and the Courtenay River estuary were discussed. We pointed out some of the bird life as well as the native plantings we have done. We did a total of 6 walks from April until the end of August. I know these walks were appreciated and we have plans to continue with them next year.

The City was directly involved with this project and supported us. Shane Tillapaugh (Urban Forestry & Natural Areas Supervisor) and Sky Niskasari ( Natural Areas Worker) attended several of the walks. The City also helped us to publicize the events. While the formal public outreach was a new challenge for us, we did continue with our traditional tasks of removing invasive species and planting native species. I will cover these tasks in more detail in this report. This was another hot dry summer and our new plantings required regular watering to survive.

# Invasive Plants and Animals

Removing invasive plants in the form of Scotch broom, was one of the first tasks of this project over 20 years ago. While Scotch Broom is hard to find in the Airpark today there are many other invasive plants which have taken its place.

## Common Tansy

The common Tansy is an aromatic perennial plant reaching close to 2 m in height. It is scattered through out the Airpark and is spreading. Our control efforts in the past have centered on the area between the Rotary Playground and the Airport taxiway. Control was attempted through continuous cutting with a mechanical string cutter 4 to 5 times per year. Although this kept the plants to a small size it did not eliminate them in over 4 years of regular cutting.



Figure 2: Volunteers digging tansy roots

This year we tried a new tactic on the Tansy growing in a recently planted area behind the totem pole. We dug up Tansy plants here. It was interesting to learn the tansy has an extensive shallow root system through which it spreads. The plants and roots were dug up and left to dry in piles during the month of September. A follow up dig was done (Nov 6) and missed roots and very small plants were removed at that time. We will closely monitor this site (Appendix II) as we have many new shrubs and forbs planted here.

Figure 3: new plants sprouting from Tansy root.



## English Ivy

This is a new invasive plant for the Courtenay River Airpark and was discovered this year on the East side of the lagoon. The patch is relatively small (3m<sup>2</sup>) and has been pulled up three times this summer. The Ivy plants were placed on a large piece of concrete to desiccate and

Figure 4: English ivy being removed



die. The Airpark being relatively hot and dry is probably not very conducive for this plant. Nonetheless we will continue to monitor this site for any further Ivy growth.

## Reed Canary Grass

Reed canary grass has been in the estuary for several years now, so it is not surprising it has found its way into the Airpark. There is a native variety of this grass, although much of it found in the estuary is the introduced variety. It is a grass that grows well on wetter sites and was introduced for agriculture purposes. In the Photo ( Fig. 5) note that it is growing just above our planted Henderson’s checker-mallow which is a blue listed plant in B.C. Reed canary grass is a notoriously difficult invasive plant to control. It is found on wet sites which pose challenges. We are attempting to smother the plants by placing thick rubber pool liner over it. Last year we attempted to smother it using black poly and card board. This was disturbed by the high tides in the lagoon. This year the pool liner has been spiked into the ground to secure it against high storm-tide events.



*Figure 5: A volunteer pins down black pond liner over the Reed Canary Grass*

## Returning Invasives

We are surrounded by many invasive plants which we have controlled, but we have to be ever vigilant for their reappearance each year. The Yellow-flag iris is a good example. It is rampant in some parts of the Comox Valley (i.e. Lazo marsh). One of our volunteers noticed a small patch this summer on the river side of the park. I was able to remove it quickly. In similar habitat on the river bank we also found that some small Japanese



*Figure 6: Yellow-flag iris*

knotweed plants had returned. We have spent much time and effort to control this invasive plant in the past. This may be ongoing as I know there are patches of this invasive weed upstream in Simms Park. I am hoping the Outreach Program means more eyes are watching for invasives creeping into the Park. The sooner we identify them, the easier it is to control them.

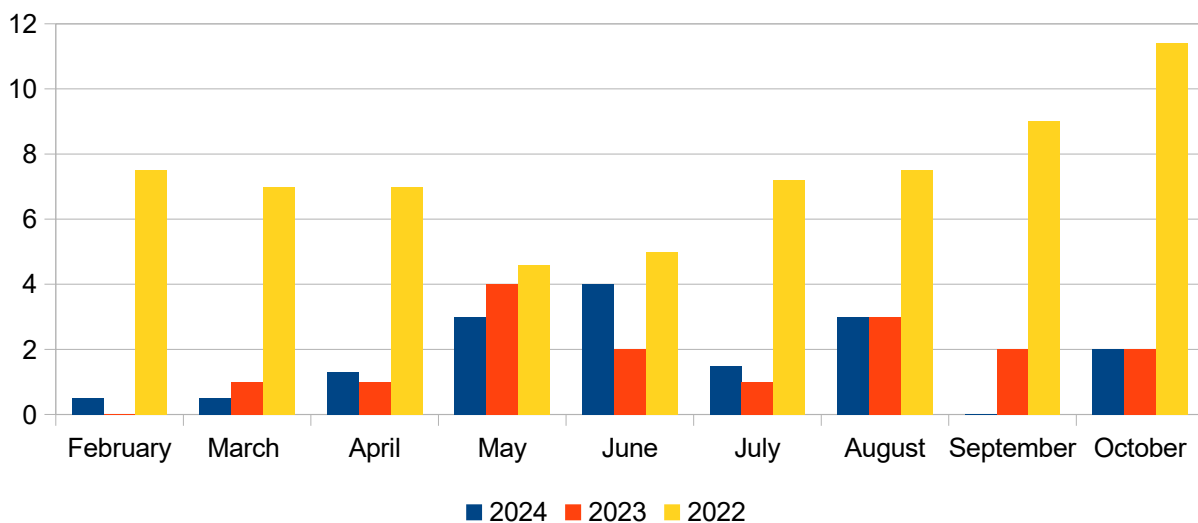
## Rabbits

Rabbits are new invasive species on this part of Vancouver Island. We now have both the Cottontail and the European rabbit. The European rabbits are the result of irresponsible pet owners releasing unwanted pets into the park. Rabbits have damaged many of our native plantings and we now fence our plantings for protection. The rabbit population is still recovering from the Rabbit Hemorrhagic Disease which passed through here in the winter of 2023, wiping out most of the European rabbit population in the Airpark. There are reports that this rabbit disease is currently being sighted in Northern Washington state. We have not observed any mortality from the disease in the Airpark yet this year.

Volunteer member Kathie Woodley does a weekly survey of rabbit numbers in the park from February until October. We do not differentiate between the cotton tails and the various European rabbits in the Park.

Table 1

Airpark Rabbit Count 2022-2024



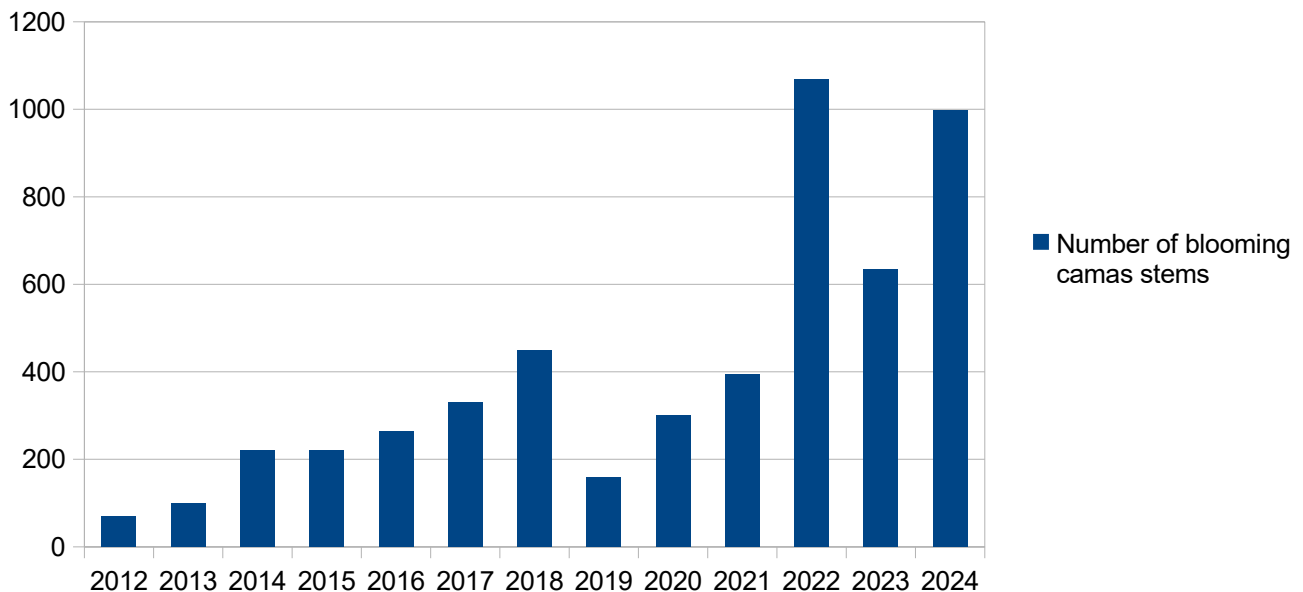
The rabbit numbers observed this year (blue bar) do not differ significantly from the numbers observed last year (red bars). It is probably too early to say that the population is stabilizing although it appears that way when compared to their numbers in 2022 (yellow bars). These are early days for an invasive species and we will continue to monitor the situation. Aside from the weekly rabbit count we also place some of our plantings outside our fenced, protected plots. These serve as controls to observe the general amount of rabbit herbivory in the field on unprotected plants.

## Native Plants

### Camas

The Camas is the iconic plant associated with Garry Oak meadows and First Nations, for whom it was an important source of carbohydrates. Very little of it remains in the Comox Valley due to agriculture and urban development. We have put great effort in establishing Camas in the Courtenay River Airpark with some success. We have faced challenges such as rabbits browsing plants which has necessitated fencing the Camas patches to exclude rabbits. We monitor the numbers of Camas plants every year by counting the mature flowering stems. It may take a plant 3 to 5 years before it produces flowers. Camas does best in the Airpark when the Spring weather is cool and wet. A hot dry spring results in fewer blooms.

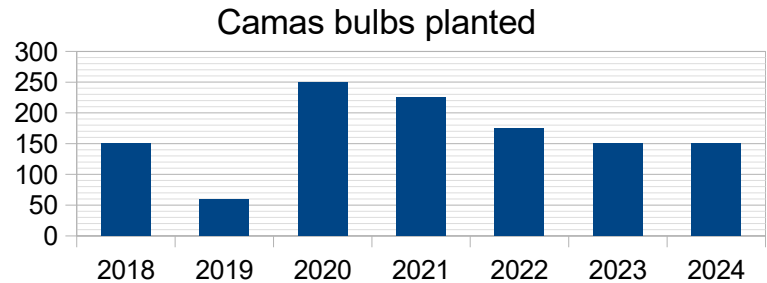
Courtenay River Airpark



The bar graph (page 7) shows that this year was the second best for the number of Camas blooms since we started planting them. The upward trend is augmented each year as more bulbs are added, while the plots are expanded.

All our Camas bulbs are grown locally. We have secured a source of bulbs from a remnant of the original Upper Prairie which is in private hands. I have been given permission to dig some Camas bulbs for our project. In addition I have been growing bulbs from seed collected from Hollyhock flats into my backyard garden. It should be noted that the Camas plant takes several years before it is mature enough to produce a bloom.

Table 3



We have established a system for growing Camas and other bulbs in the Airpark over the years. The planting plot is prepared by covering it with black poly for a full growing season starting in late Winter. This solarization kills the weeds and grasses underneath to reduce competition for the Camas. This covering is removed in the Autumn when the bulbs are planted. We have been expanding our Camas patches by planting adjacent to existing plots. This makes it easier to care for and protect the plants rather than scattering them throughout the Park.



Figure 7: Black plastic concentrates heat to kill weeds and grasses underneath

*Figure 8: Camas blooming in April*

The Camas is not planted alone in the Fall. Other native bulbs are planted with it. They include Hookers onion, Nodding onion and Fools onion. This year we also introduced Sea-side lupin and Yarrow which are not bulbs but native plants nonetheless. We do some weeding in the Camas plots to remove Tansy and other invasive plants.



### **Deltoid Balsamroot**

This plant is a listed species on Vancouver Island where it grows with Garry oak and Camas. I have started them from seed and have been growing them in my garden for the past two years. This year we have transplanted some into the Airpark Camas plots. These were given special treatment with regular watering throughout the summer drought season. They did die back in mid to late summer which I hope was normal. The roots still look healthy. If the transplanting was not successful I have extra plants in reserve and will try again in the upcoming year



*Figure 9: Two year old Deltoid Balsamroot*

### **Native Shrubs**

We have planted native shrubs in two new areas in the Airpark this year(Appendix II). Although about half were purchased from Streamside Native Plants, others have been grown by Club members like Bob Hauser who has raised Oceanspray, Ninebark, and Flowering red currant in his home garden and then donated them to this project. The areas planted with shrubs were an area south of the Airstrip gate along the Riverway and a second area was behind the Totem pole. Some of these were planted in the late winter and were watered by volunteers during the summer drought period. We have only had a single mortality at this time.

## **Special Plantings**

One memorial tree was planted this year in memory of Bill Heidrick. This large Garry oak (3m) was watered by volunteer Katie Woodley and appears to be doing well.

## **Natural Infill**

In the last few years we have noticed some native plants coming into the Airpark on their own. This is very exciting as it seems to indicate that environment is changing to accommodate the return of some of the native vegetation expected on this site in a natural state. Assisting this we have observed a change in the soil over the last 25 years. In former years the soils in the Airpark had very little organic content. They were largely a mixture of municipal waste and river dredgings. We are seeing the character of the soil change as witnessed by the brown colour we now see in much of it.

## **Dunegrass**

Dunegrass is a native grass found on shorelines and coastal dunes. Much of the Airpark is great habitat for this native plant and there are several patches of it in the Park. The Dunegrass has not only returned but is spreading. We have assisted this process by removing weedy competition in the form of common tansy and sweet cherry around it.



*Figure 10: Patch of Dunegrass along the River Walkway*

## **Lomatium**

A pleasant surprise this year was to observe two native Lomatium species find their way into the Airpark and into our Camas plots. The larger one in the photo is the Bare-stem desert parsley. Closely related but much smaller is Spring gold. It is most common in the Valley at Cape Lazo early in the Spring. It was found in our oldest Camas plot which is closest to the shore of the estuary.



*Figure 11: Lomatium (yellow bloom) with camas in foreground*

## **Other Native Plants**

There are many native plants which are usually found along the shorelines in this part of Vancouver Island. Gumweed is a highly visible yellow flower and very attractive to pollinators. Although we have seeded it in parts of the Airpark it is showing up scattered throughout the Airpark.

Another native plant that has showed up in the Park is the Dwarf owl clover. Although very small it has red foliage and thrives on hot dry sites where few other plants could survive. It is a root parasite on various grasses and was first observed in the Airpark 3 years ago.



*Figure 12: Dwarf owl clover*

## Seed Planting

The easiest way to grow plants is by sowing seed. Unfortunately unless the ground is receptive and the weather cooperates it is also the most risky to have success with. In the last couple of years we have tried this with some limited success. Our seed mix is listed in Appendix I. The seed mix has consisted of local native seeds mixed with seed purchased from Northwest Meadowsapes, a native seed house in Port Townsend Wa.

Site preparation consists of raking the thatch off the plot and getting the soil visible. In the late autumn or early winter seed can be spread. As many of the seeds are very small, they are mixed with sand, vermiculite and peat to give the mixture some volume and bulk. This allows them to be spread more easily. After spreading the seed the plot is covered with a thin layer

*Figure 13 Sea blush (pink flower) seeded in a Camas plot.*



fine bark mulch to conserve moisture and hide the seed from birds. As Figure 13 shows we have had some success in growing Sea blush (pink blossom).

## Volunteer Statistics

We limit our volunteer workers to members of Comox Valley Nature our parent organization. This is partly for liability reasons, but it also insures some continuity in our work force. There are some changes year by year and between different work parties but for the most part we have a stable group of volunteers. Some are new to this work while others are experienced gardeners. I am happy to see all of

them when I put a call out, and I am very grateful for all the fine work they do in the Courtenay River Airpark.

This year I calculated we did 160 hours of work in the Park (Table 4). This was similar to last year and slightly higher than our ten-year average. This table only shows the actual time spend labouring in the Airpark. It doesn't show the time doing outreach (see pg 3) nor the time spent in growing plants in the home garden, nor the time spent organizing etc....

Table 4

### Comox Valley Nature Volunteer Hours



## Social Problems

Homelessness persists in Courtenay and it looks to be a long-term challenge for all governments at the different levels. We occasionally run across signs of camping in the Park. Courtenay's Bylaw Enforcement as well as Police and Fire have all been quick to respond to the various situations. We are happy to see this, as camping with the associated garbage and fire pits is unacceptable in a City park, especially one with such high ecological values.

Figure14; Discarded tarps and camping gear



## Looking forward to 2025

This year we started a public education outreach program in the Airpark. We felt it was successful and we would like to continue with it in 2025. I think this was very much a learning year for us and I know we will improve our program in the upcoming year. I hope to make use of some of the expertise within CV Nature to highlight different aspects of the Airpark for different walks. Some topics could be bird life, invasive plants, and geology of the estuary. As well, a kids tour would be a great addition.

I would also extend an invitation to City staff to lead walks. I would like to hear their views on the management of the Courtenay River Airpark and how it fits into their system of Parks and Walkways.

Some year ago Comox Valley Nature started installing small signs identifying the native plants in the Airpark. These were improved and updated five years ago with help from the City of Courtenay. The time has come to improve and replace them again for a variety of reasons. Some have rotted posts, some have been sun bleached, while for others the plant names have changed. One of our volunteers did a sign inventory this year so we can prioritize the replacements. There are 27 signs in the park. Our plan is to do the total replacement over two years working in cooperation with the City of Courtenay.

We have installed bird boxes to encourage Swallows to nest in the Airpark. These have not been very successful, so we may relocate some of these boxes this year.

# Appendix I

## Seed mixture 2024

Seablush - *Plectritis congesta*

Roemer's fescue – *Festuca roemeri*

Hooker's onion – *Allium acuminatum*

Gumweed – *Grindelia integrifolia*

Northern wormwood - *Artemisia campestris*

## Shrubs planted 2024

Oceanspray - *Holodiscus discolor* 5

Red-osier dogwood - *Cornus stolonifera* 1

Scouller's willow - *Salix scouleriana* 1

Mock orange - *Philadelphus lewisii* 1

Red-huckleberry - *Vaccinium parvifolium* 2

Black-huckleberry - *Vaccinium membranaceum* 1

Big-leaf lupine - *Lupinus polyphyllus* 3

Woolly Sunflower- *Eriophyllum lanatum* 4

## Trees planted 2024

Garry Oak - *Quercus garryana* - 1

# Appendix II

