

A photograph of a person walking away from the camera through a dense forest of large, mature trees. The ground is covered in green grass and dappled sunlight. The scene is peaceful and natural.

*A Walking Guide to Species of Interest*  
**VICTORIA'S URBAN FOREST**

**VALENTIN SCHAEFER**

with Britton Jacob-Schram  
Photography by Rachel Grigg



# Victoria's Urban Forest

A Walking Guide to Species of Interest

Valentin Schaefer

with Britton Jacob-Schram

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“The appearance of the interior,  
when seen from the coast, is rocky  
and mountainous, evidently volcanic;  
the trees are large, principally oak and pine.”

—PAUL KANE

*Wanderings of an Artist, 1847*

“Of all the trees that grow so fair,  
Old England to adorn,  
Greater are none beneath the Sun,  
Than Oak and Ash and Thorn.”

—RUDYARD KIPLING

*A Tree Song, 1867*

# Acknowledgements

The author would like to thank Colleen O'Brien, Park Steward for Playfair Park, District of Saanich, who kindly joined Dr Schaefer at this restoration site to explain work being carried out.

*Cover Image | A parkgoer marvels at a copse of Black Cottonwoods in Victoria's Beacon Hill Park.*

*Following Page | Map to some of Victoria's neighbourhoods and urban forests (Britton Jacob-Schram).*

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Saanich

Playfair Park

Oaklands

FINLAYSON ST

17A

Hillside

Rock Bay

BAY ST

SHEARBURNE

Downtown

Fernwood

FORT STREET

Rockland

Oak Bay

James Bay

DOUGLAS ST

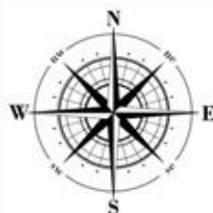
COOK ST

Fairfield East

Beacon Hill Park

DALLAS RD

Fairfield West



# VICTORIA

# Urban Forest Ecology

## *Managing Greater Victoria's Urban Forest*

Encompassing more than 2300 square kilometers, the Capital Regional District (CRD) is known for fostering a culture of respect for the endangered Garry Oak ecosystem in which it continues to grow. Many CRD residents have an affinity and appreciation for local community gardens, organic farming and edible landscapes—many reflected in their choices of tree species to conserve, plant, and cultivate. Local government prides itself on creating sustainable communities, understanding that trees play an important role in low impact development. Urban forests and examples of their ongoing restoration can be seen across Greater Victoria, from the downtown's historic Beacon Hill Park and Playfair Park in Saanich, to the urban food forests of Victoria's Fernwood neighbourhood and Springridge Commons.

The urban forest is made up of various tree species and stand types, and can be composed of remnants of the original forest, often enduring as parks. Some stands however, have taken on a hybrid identity, as non-native trees have been introduced, spread and become part of the canopy and stratified understory. Some parks, especially smaller ones, include small forests composed of primarily non-native species. These stands are embedded into the matrix of the city, which contains an assemblage of street trees, fragments of the natural forest, trees on private land, larger institutional grounds, or the much smaller spaces of front and backyards.



*(Opposite page)  
A late 19th century map, entitled Bird's-Eye View of Victoria, shows a patchwork of agricultural fields and remnants of the original forest. The Dallas bluffs are in the foreground, leading to Beacon Hill Park, then a racetrack, on the right.*

*(Glover, 1878)*

The differentiated forest structure and composition produces varying degrees of ecosystem health and ecological integrity. Biodiversity in the urban forest is on par with the wilderness fringe of a city (Schaefer, et al. 2004).

One common obstacle urban forest ecosystems face is the challenge of recruiting new trees. Stressed by roads, traffic, foot traffic, pollution and other disturbance, tree attrition is high in an urban environment (Ordóñez and Duinker, 2012). Most urban trees do not have the opportunity to live out their natural lives. They become diseased and die, or land use changes and trees suffer the worse for it. If a homeowner decides a tree has become too large or too messy, it is likely to be cut down instead of sustainably managed. When fragments of the mature forest are disturbed by development, very rarely does the forest reach its “climax” stage as old growth community (Schaefer, et al. 2004). New trees might be planted in place of ones removed, but on the whole this type of management, or lack thereof, results in a readily diminishing urban forest tree canopy.

Nevertheless, there remain stunning examples of old-growth trees and fragments of the unique ecosystems that once dominated the region to be discovered by the urban adventurer. More than this, the urban forest is a historical map of the city’s colonial expansion, incorporating species carefully collected from around the world, and clues to the social mosaic of the past.

## *Beacon Hill Park by Douglas and Avalon*

Beacon Hill Park is nestled within the harbourside enclave of James Bay, the City of Victoria's oldest residential neighbourhood. Vegetation around the Park is typical of Victoria's urban forest. Garry Oaks are less common and Douglas-fir trees are abundant. Onshore winds and storms coming from across the Strait of Juan de Fuca have distinctively sculpted trees by the Dallas bluffs, while large Giant Sequoias and other non-native tree species can be seen throughout the neighbourhood. Whether solely composed of native Garry Oaks savannahs or interspersed with non-native redwoods like the Giant Sequoias, tree stands within the city take on a surprisingly significant role in the maintenance of natural ecosystems.

A excellent local example of this is the famous heron colony of Beacon Hill Park, located at the intersection of Douglas Street and Avalon Road.

Although herons are often thought of as wading birds, posing statuesquely along the ocean shore or freshwater marshes and streams, they actually roost and nest in trees. The magnificent birds build bulky, loose nests of branches and band together in colonies. Beacon Hill Park has supported a Great Blue Heron colony off and on



Photo | Rachel Grigg

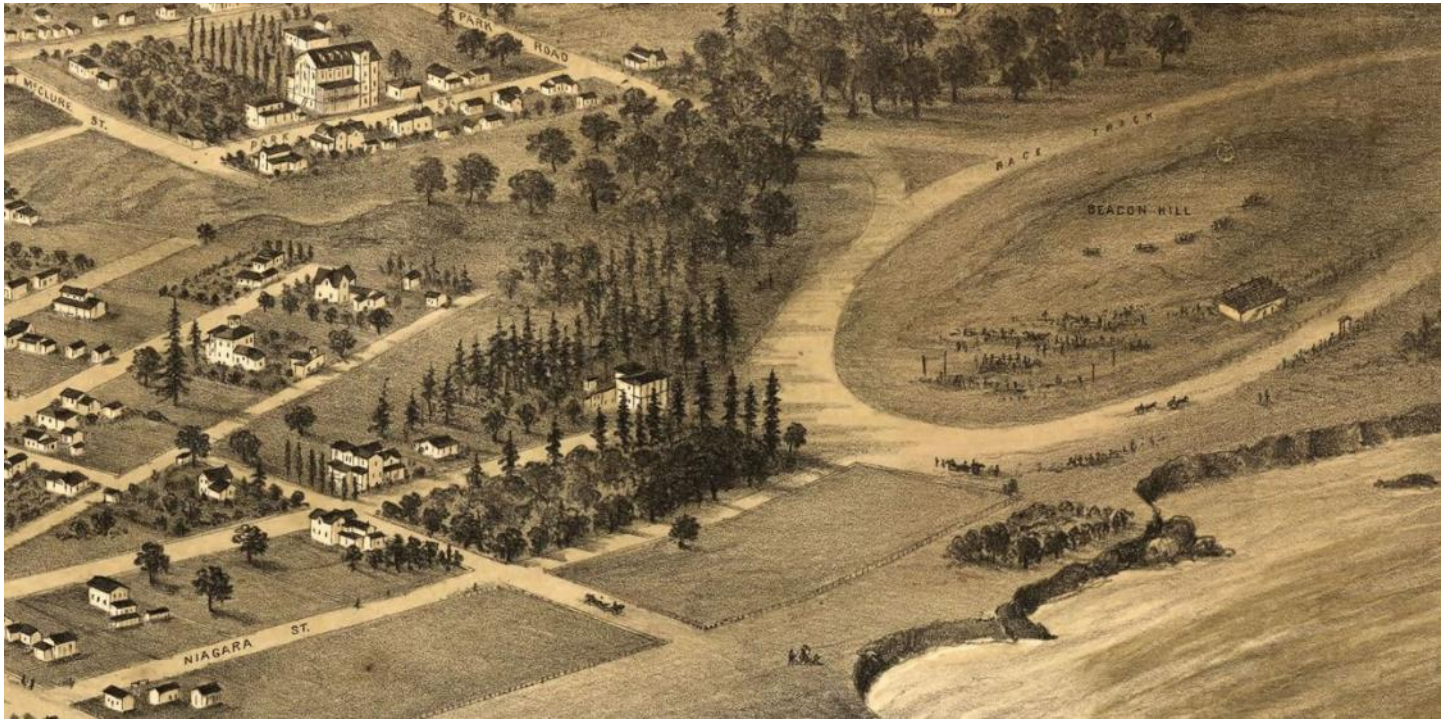
*Victoria's Beacon Hill Park attracts resident shorebirds and wading birds alike, like this Great Blue Heron.*

for a number of years. Each year, from February to August, the herons' intricate cycle of courtship, nest-building and caring for their young begins anew. At its prime, researchers have counted more than 100 heron nests, mainly situated in Douglas-fir trees—some of which may be part of the original forest (Hawthorn 2012). However buildup of the birds' guano can harm the trees in which they roost: the soil below becomes acidic and branches begin to die off. This thins the canopy and exposes heron nests to things like disturbance and predation (mainly from Bald Eagles).

When this happens, the colony usually will move on. A Great Blue Heron colony typically only stays in one place for 10 to 15 years.

In 2007 the Beacon Hill Park colony split up, with the birds moving to several locations around Victoria. The largest group relocated north behind Tillicum Mall at Cuthbert Holmes Park, another tree stand in Victoria's urban forest. In 2011, parks staff confirmed the return of the herons to Beacon Hill Park and by the end of the breeding season, 19 nests were visible. The colony selected Douglas-firs, Sequoias and Copper Birches for nests near Goodacre Lake (Hawthorn 2012). Unlike their continental cousins found farther east in the province, non-migratory Great Blue Herons along the Pacific Coast (subspecies *fannini*) are considered vulnerable to extinction. The subspecies is actually blue-listed under the Species at Risk Act and considered by Environment Canada a species of special

*Conifers and what appear to be large Garry Oaks surround Beacon Hill in this 1878 rendering of Victoria (Glover 1878). Beacon Hill Park was formed into a horse-racing track, after the excavation of the hill's largest aboriginal burial cairn—one of approximately two dozen cairns present on the hill in the mid-1800s (Ringuette 2004). A handful of the trees depicted remain in the park today.*



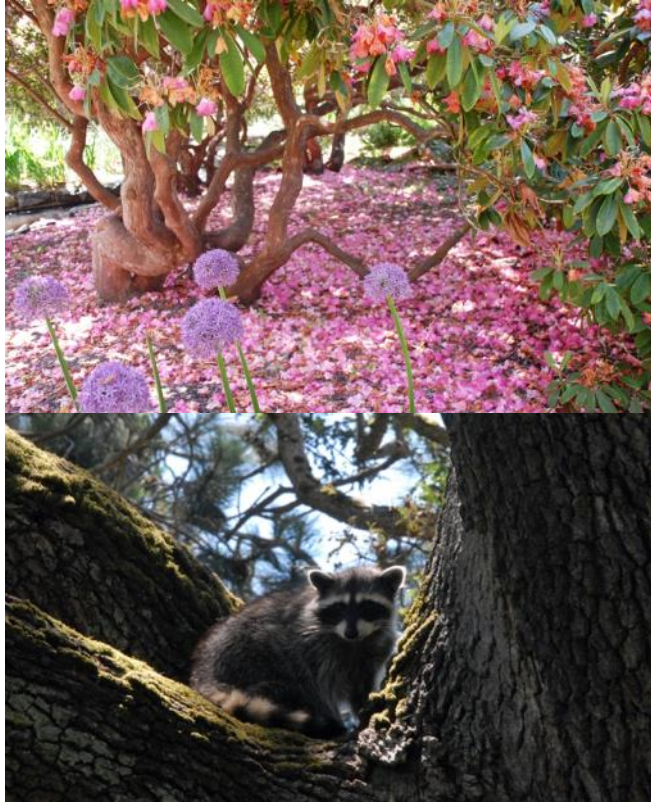
concern (SC), meaning it may become threatened or endangered if current threats and biological trends do not change in favour of the birds (Canada 2014). Indeed, the Beacon Hill Park is significant to the subspecies; yet, sadly, researchers lament if numbers do not increase, this park's population might not be able to sustain itself.

From here, continuing south along Douglas Street, London Planetrees line the street. Thought to be a hybrid between the American Sycamore of eastern North America and the Oriental Plane of Eurasia, these large deciduous trees, which can grow up to 30 meters in height, do well in urban settings and are commonly planted in both North American and European cities. Small hairs from the leaves and seeds and/or mildew from the tree can cause respiratory problems. Parks staff have noted this has been serious enough to make them sick for days. The bark of the trees sheds in large plate sized chunks—a natural sloughing, it can give the tree a diseased look. When London Planetrees are infected with a fungus or are attacked by insects, the trees can develop serious galling (bulbous growths) on woody parts or their maple-like leaves. Galls appear to progress upwards from the ground, suggesting a fungal infection from the soil. At any rate, this species takes to a wide range of climates, is fairly wind-resistant and tolerates urban pollution quite well, making it a popular street tree from New York to Australia.

Several other tree species can be found in this vicinity of Douglas Street, including Western Redcedar, Paper Birch, and a few Red Alder saplings planted by the Parks Department. Both Red Alder and Paper Birch are native pioneer tree species for this region, meaning they are often the first to colonize an area following a disturbance.

*A rhododendron lays out its annual spring carpet near Beacon Hill Park's Fountain Lake, while a raccoon wakes in the crux of an oak nearby.*

*Photos | Rachel Grigg*



Heading back into Beacon Hill Park from Douglas Street, several magnolias and rhododendrons are seen along the stream running north from Fountain Lake to Goodacre Lake. With evergreen leaves and showy flowers, the two species are popular choices in parks. Native rhododendrons were described as growing alongside Arbutus trees by famed Scottish botanist Archibald Menzies, as he travelled the Northwest Coast with George Vancouver in 1792 (Justice 2000). The Pacific Rhododendron range extends from British Columbia to Central California, but exotic rhododendrons from Asia are most often used in local landscaping.

The American evergreen species of magnolia, the Southern Magnolia, is native to the

United States' southeast. Not all magnolias are evergreen and several of the deciduous variety can be found in the area, one of which bears a memorial plaque. Commemorative trees are an important feature in the urban forest. While most often non-native, certainly they highlight the community value of these species. One of the more popular trees used to this effect is the Princess Tree or *Paulownia*, a tree valued for its large growth, heart-shaped leaves and delicate, bell-like blossoms.

The Katsura, a tree with similarly rounded leaves, can be found just north of Fountain Lake, with its branches extending well over the stream.

Adjacent, on the western side of the Fountain Lake bridge we find a Corkscrew Hazel, a hardy shrub named for its uniquely coiled stems. Our native Hazelnut tree has straight branches and produces edible hazelnuts prized by Steller's Jays, squirrels and



(Opposite page) A Katsura tree shades a stream flowing north from Fountain Lake at Beacon Hill Park.

At left, the scaly bark of the native Sitka Spruce.

Photos | Rachel Grigg



chickadees. Hazelnut varieties are used regionally in ecological restoration and cultivated commercially, both as an agricultural crop and to host truffle production (O'Dell and Arjen 2014). Its helical stems make the Corkscrew Hazel an intriguing addition in flower arrangements.

Between Douglas Street and the trail from Fountain Lake to the wading pool, a number of Sitka Spruce and Black Cottonwood trees grow. The large scaly bark of a Sitka Spruce gives its trunk an almost reptilian appearance. One of the species associated with old growth forests, the most ancient Sitka Spruce forests are found along low-lying river floodplains. These trees can grow to be very large. The tallest spruce in Canada, the 92-metre-tall San Juan Spruce, actually is found on Vancouver Island (Pojar and MacKinnon 1994). Used to build everything from airplanes to musical instruments, wood of the Sitka Spruce has unique properties and is highly valued by the agroforestry industry. Timber from one large tree alone can fetch \$70,000.

Black Cottonwood, like Sitka Spruce, is another moisture-loving tree. Sitka Spruce, Douglas-fir populations on southern Vancouver Island and Western Redcedar stands found on the southwestern British Columbia mainland are considered climax species, species that dominate a landscape when the plant community nears a natural balance. Black Cottonwood, Alder and Birch, as previously mentioned, are early successional species—species capable of occupying bare ground. A fast-growing tree, the Black Cottonwood is much larger than the nearby Sitka Spruce, (even though they are likely the same age). Black Cottonwoods can become hazards in parks since they can begin dropping large branches even at just a few decades old.



*The sculpted trunk of a Dawn Redwood. A number of these trees are threaded throughout Beacon Hill Park.*

*Photo | Rachel Grigg*



*The upturned branches and immature, green seed cones of one of Beacon Hill Park's native Western Redcedars.*

*Photos | Rachel Grigg*



Mixed in among the Black Cottonwoods is a Dawn Redwood, easily distinguished by its trunk's interesting sculpted appearance. A popular ornamental, the Dawn Redwood is just one of three coniferous species known as redwoods. Even though a conifer, the Dawn Redwood loses its needles in winter. It is the only living species of its genus, *Metasequoia*, which was considered extinct until its rediscovery in China in the 1940s.

Nearby are several large pine trees. These are Black Pines, a Mediterranean pine not native to Canada, however, a popular choice for parks and as street trees because of a relative tolerance of urban conditions, including industrial pollutants and drought. It is also a popular species for wind-breaks. Pines can be identified in part by needle-length and the number of needles in a fascicle (a bundle or cluster of needles). The long needles of

the Black Pine set it apart from our native Shore Pine and non-native Scots Pine, since all three species have two needles per fascicle.

Beacon Hill Park is home to a few uniquely-shaped trees. The branch of one Western Redcedar sweeps out sideways for several feet, then, like a candelabrum, grows upward from where it touches the ground. A Weeping Birch has had its branches trained to spill down from the top of a shortened trunk, giving it a fountain-like appearance. Another cedar, an Eastern White Cedar, with its fanning branches and yellow-tinged cones, hugs the edge of the park. This tree belongs to the same cypress family as our native Western Redcedar, but, as its common name suggests, it is found naturally occurring in parts of eastern Canada and the United States.

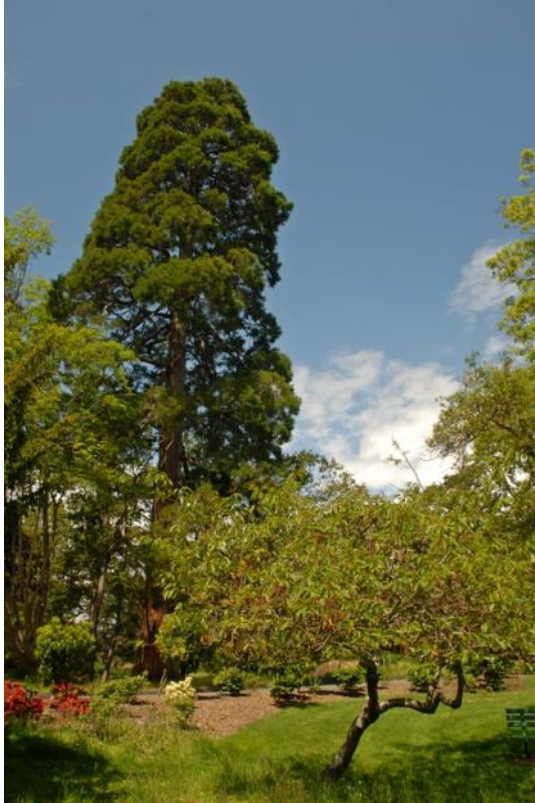


*The curtain-like effect  
Weeping Birch  
branches, near Beacon  
Hill Park's Fountain  
Lake.*

*Photo | Rachel Grigg*

*A Giant Sequoia towers over some of Beacon Hill Park's cherry trees.*

*Photo | Rachel Grigg*



The park's Japanese Cherry trees, known as Hill Cherry or East Asian Cherry, also exhibit interesting formations. A number of cherry trees have been planted throughout Victoria along boulevards and parks for their eye-catching blossoms. Often cultivated by grafting—a technique in which branches from an attractive flowering tree are expertly attached to the trunk of a tree with good root stock—cultivated Japanese Cherry trees rarely bear fruit, making them an ideal candidate for cities desiring showy street trees with little mess.

From Fountain Lake, east along The Circle, a number of large conifers tower over a small putting green, with a memorial at its center. In the western corner of this green is a Giant Sequoia, a species touted as the world's largest single tree by volume (Johnston 1998). A number of these endangered conifers have been planted throughout James Bay

and Fairfield in Victoria, as well as in neighbouring Oak Bay. Some of these trees are estimated to be more than 100 years old. Though native to the Pacific Northwest, the natural distribution of the Giant Sequoias does not yet include British Columbia. Yet the regal species grows quite well here, and with the warming trend of climate change Giant Sequoias may naturalize here in the future. Another redwood, the Coast Redwood, dominates a nearby corner of the putting green, its needles resembling a Yew tree.

Doubling back along The Circle toward Douglas Street, tall narrow conifers flank the corner and inner courtyard of a condominium complex on Simcoe Street. These are Omorika or Serbian Spruce, an endangered conifer native to a very small valley in Bosnia and Herzegovina. Their narrow form and ability to tolerate a wide range of



*The slender shape of a Serbian Spruce near the corner of Douglas and Simcoe Streets.*

*Photo | Rachel Grigg*

soils make them a popular choice for cities, especially when planting close to buildings. Serbian Spruce has been known to hybridize with Black Spruce and Sitka Spruce, both of which are native to British Columbia (Rushforth 1987).

Farther west, where Simcoe meets St. Andrews Street, stand two Arbutus trees, distinguished by peeling paper-thin bark and red berries, which can remain on the tree well into Christmas (Pojar and MacKinnon 1994). While their orange outer bark flakes off, the inner bark is smooth, with a pale-green pistachio colouring.

Arbutuses are evergreen, but they are not conifers; and, though obviously trees, they are part of the heather family. Because they come from a plant family not long-adapted to growing as trees, their cambium fails to produce outer bark tissue fast enough to keep up with the woody tissue of the trunk and branches, making the bark stretch and peel as the tree grows. For the Saanich Nation, the Arbutus is a sacred tree, figuring heavily in their flood stories; its bark can be steeped for tea, but the revered wood is never used for burning (Pojar and MacKinnon 1994).

Heading down St. Andrews Street on the eastern side, there are two large Weeping Willows in a residential backyard. Once spread along ancient Chinese trade routes, these are fast growing, moisture-loving trees that develop attractive weeping cano-

*Thousands of years of First Nations' traditional management of the landscape in order to harvest Camas (opposite) inextricably ties the wildflower to the endangered Garry Oak Ecosystem.*

*Photo | Rachel Grigg*



pies (obviously, a tree that needs a lot of room to grow). A few doors down from this house stands a bluish conifer: this is a Colorado Spruce or Blue Spruce. A fairly small specimen, when planted in an urban setting this species of spruce will rarely grow taller than 15 meters; however, it can grow well over 20 meters in height in its native range, which extends from Wyoming to New Mexico.

On the western side of St. Andrews Street is a large Garry Oak. This native oak bears its own associated ecosystem of meadow plants, including Camas, with two color variants: creamy white and lilac. Camas bulbs were a dietary staple of the region's many First Nations, who actively maintained these meadows through regular burning. Without this practice, conifer saplings would have grown to shade out more fire-tolerant Garry Oak trees and the climax community of Coastal Douglas-fir would have overtaken. It was the traditional management of Camas which created the unique, cultural landscape of today's Garry Oak Ecosystem.

Near the Garry Oak, on the same side of St. Andrews, stands a large Western Hemlock. This is another species that, along with

Western Redcedar, forms part of the climax forest on the mainland (however, not here on southern Vancouver Island). The growing tip or leader of the tree tends to lean or droop, giving the crown a characteristic appearance. The needles of the tree are variable in length, which is where the tree derives its species name *heterophylla*, literally “other leaves”. Western Hemlock roots are shallow and the tree can grow to be quite tall, creating a high degree of instability during strong winds—an obvious potential hazard within a city.

The mild Mediterranean climate of Victoria can support a number of palm species, as evidenced by the Windmill Palm found at the end of St. Andrews Street. This type of fan palm, native to Asia, is considered quite hardy. With its shallow root zone and ability to tolerate drought, many find it a very suitable palm to grow, depending on the urban situation. Pyramid Cedars are also found on St. Andrews. These are a variety of cedars known as *Arborvitae*, a popular evergreen shrub often planted by garden sculptors.

Where St. Andrews Street wraps west into Marifield Avenue towards Government Street, a large English Holly can be seen. These non-native trees are found throughout the Greater Victoria Area. Holly has attractive, shiny evergreen leaves, bearing bright red berries eaten by robins and several other bird species. Unwitting agents for the spread of such invasives, birds disperse both native and non-native seeds to germinate in natural areas surrounding the city. English Holly commonly is removed from natural areas through invasive species management.



*The Olympic rain shadow and its associated Mediterranean climate support a number of palm species, such as this Windmill Palm, found at Niagra and St. Andrews Streets.*

*Photo | Rachel Grigg*



Also on Mayfield Avenue, near the holly tree, is a Strawberry Tree, with round yellow and red strawberry-like fruit hanging from its branches. The berries are a far cry from true strawberries; they smell of anise, take a year to ripen, and can ferment on the branch. Just about when all the fruit has dropped the tree begins flowering again. The Strawberry Tree is in the same genus as the Pacific Madrone (also known as the Arbutus), and has quite a storied past of cultivation. When botanist Archibald Menzies first collected specimens of the native *Arbutus* in 1792, his descriptions were actually of the non-native Strawberry Tree (Parish and Thomson 1994).

*(Opposite page) A native Arbutus inhabits a rocky stretch of shoreline west of Victoria.*

*English Holly chalks up much of its invasiveness to its bright red berries, an attractive lure for avian species, which aid in its distribution.*

*Photos | Rachel Grigg*



An English Yew can be found along Marifield as well. This European species is easily distinguished from the native Pacific Yew by its multiple trunks, resembling a hedge more than a tree, while the Pacific Yew has one single trunk. A chemical discovered in the bark of the Pacific Yew, taxol, was found to have cancer-healing properties and is now used in the treatment of breast, colon and non-small cell lung cancer (Oberlies and Kroll 2004). The flesh of the yew berry is edible, but its seeds are extremely poisonous.

Turning right onto Government Street a number of Japanese Plum trees of the Pissard variety can be seen. The leaves and fruit of this tree are both a dark red and purple. Across the street is another berry-producing shrub, the English Hawthorne. As is the case with holly, the berries are eaten by birds and dispersed into natural areas where the trees have become invasive. English Hawthorne occupies habitat similar to our native Black Hawthorne and can displace it.

*Tulip Trees,  
which bloom  
around May,  
line Government  
Street.*

*Photo | Rachel  
Grigg*



Along Government are a number of very large Tulip Trees, a fast-growing and long-lived hardwood that can reach up to 50 meters in height. Named for their cup-shaped, showy flowers, Tulip Trees reveal their large, yellow and orange-limbed blossoms around the month of May.

Turning left onto Michigan we see the street is lined with large Horse-chestnuts. The nuts of these trees are a very attractive dark ebony colour; however, they are not edible. The edible chestnut comes from the Spanish Chestnut, also called the Sweet Chestnut. There are a number of Spanish Chestnuts in Victoria, but none found along Government Street.

The grounds of the building on the corner of Michigan and Government also boast a large English Oak and European Beech. The English Oak is a large deciduous tree with a leaf similar to that of the native Garry Oak; it has a relatively large cone, as well. The two trees

grow somewhat differently, however: the English Oak often has branches coming off the main trunk, much lower down than on a Garry Oak.

The European Beech (or Common Beech) has smooth bark and, while deciduous, the leaves actually stay on the tree through the winter. When a tree does this, the leaves are referred to as marcescent leaves (Addicott 1982). There is another beech variety featuring leaves purplish in colour rather than green—this is the Copper Beech. The American Beech, which is found in eastern Canada and the United States, along with the Sugar Maple forms part of the beech-maple climax hardwood forests in the east. The American Beech is not usually planted as a street tree and has yet to prove a tolerance for urban settings (Gilman and Watson 1993).

A park at the corner of Menzies and Michigan is the former site of Irving House, the home of John Irving, a steamship captain and the son of William Irving (also a steamship captain). This is not to be confused with the Irving House in New Westminster, home of the senior Captain Irving that still exists. The park here has several very large Giant Sequoias, four of which once marked the entrances to Irving's semi-circle driveways. Affluent Victorians often planted Giant Sequoias at the front of their homes, the tallest of which can be found at the corner of Moss and Richardson (Mapping the Giant Sequoias 2013). Toward the back of the park at Menzies and Michigan is another large, expansive European Beech.

Down Simcoe Street on the left stands a Western White Pine, a popular ornamental. The species has five needles per fascicle, and its needles are quite pliable. Its sticky cones are slender, long—up to 32 centimetres—

and display whitish tips. On the other side of the street is a Monkey Puzzle tree. Native to Chile and Argentina, there are quite a few of them around Victoria. The foliage of this tree consists of hard, sharp, succulent leaves that tightly cover the branch. Its seeds are heartier, thumb-sized versions of pine nuts and indeed are edible. The “pine nut people” of the Andes brew a ceremonial drink from the fermented nuts (Stewart 2013). Seed production does not start, however, until the female tree is about 30 years old.

On the same side of the street are several large Paper Birches. Victoria’s streets are peppered with a number of very large birches. As mentioned earlier, these trees are a pioneer species and not very long-lived. Birch trees of this size have been known to blow over in strong winter wind storms, their older roots having become rotten with fungal infections.

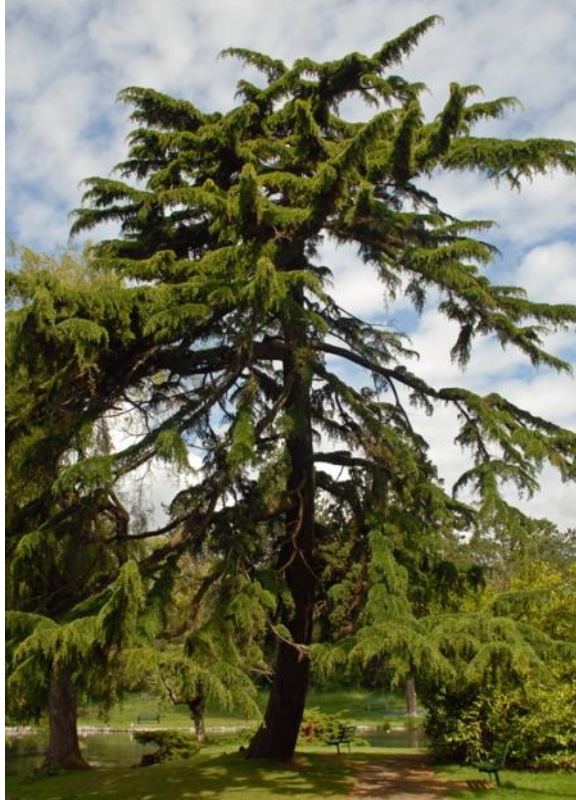
A few doors down is a Deodar Cedar, a cedar with impressive, sweeping branches and dense bunches of pine-like needles. The native range of this species extends from India and the Himalayas east



Deodar Cedars are true cedars, with cones that sit upright on their branches. Beacon Hill Park has a number of these majestic trees, some supporting Great Blue Heron nests.

(Opposite page) An eye-catching species native to South America, the Monkey Puzzle tree graces many a front yard in Victoria. This large specimen is found on Pembroke Street, in the neighbourhood of Fernwood.

Photos | Rachel Grigg



to China. It grows quite well here, however, and does not naturalize. The Deodar Cedar is a true cedar, with barrel-shaped cones growing upright on branches.

Also found in Victoria are the Atlas Blue Cedar and the nearly identical Cedar of Lebanon. These are true cedars, which are in the genus *Cedrus* in the pine family, *Pinacea*. Conversely, our native Western Redcedar, of the genus *Thuja*, is in the cypress family (*Cupressaceae*) and shares the scale-like leaves characteristic of this group.

*Native Garry Oaks at  
the District of Saanich's  
Playfair Park.*

*Photo | Rachel Grigg*



# Playfair Park

Playfair Park is accessed by Rock Street or Cumberland Road, situated in native Garry Oak forest—a mix of rocky outcroppings with thin soils overtop and open forest in areas of deeper soil. This 3.7-hectare park, located in the Quadra area of the District of Saanich, was created from a dairy farm established in the area in 1924 and the undeveloped woods to the south and southeast of the farm. The District of Saanich made Playfair Park one of its official parks in 1958. Since then, numerous non-native trees and shrubs have been added, in particular an arboretum for Rhododendrons.

The Garry Oak Restoration Project (GORP) includes nine sites within Saanich which are a focus for ecological restoration of the remaining Garry Oak ecosystem, an ecosystem ranked among the top three threatened ecosystems in Canada. While many administrative efforts have focused largely on preserving the Garry Oak trees themselves, it is important to focus on protecting the savannahs as complete ecosystems to ensure the survival of all of the ecosystem's endemic species. We will look at what has been done to restore the Garry Oak ecosystem in the park and examine street trees in the neighbourhood around the park.

## *The Garry Oak Ecosystem*

The Garry Oak tree is the keystone species of the Garry Oak savannah ecosystem, whose meadows are blanketed with tall grasses and spectacular (and rare) wildflowers. Distribution of this ecosystem spans from California to the lower mainland and the Gulf Islands—placing us at the very northern limit of this system’s reach. Home to more than 100 threatened species of plants, butterflies, reptiles, birds and mammals, this sensitive ecosystem continues to be threatened by human land-use development. The remnants of natural lands owned by the District of Saanich thus have been turned into living laboratories to demonstrate opportunities for environmental stewardship, preservation and education of this sensitive ecosystem. Playfair Park is one such site. It is the most intact of the GORP sites, exhibiting outstanding spring wildflower blooms. Without conscientious conservation these last pockets of the Garry Oak savannah could very well be lost.

Some native species characteristic of the Garry Oak Ecosystem found at Playfair Park include Garry Oak (*Quercus garryana*), Nootka Rose (*Rosa nutkana*), Snowberry (*Symphoricarpos albus*), Common Camas (*Camassia quamash*), Great Camas (*Camassia leichtlinii*), Chocolate Lily (*Fritillaria lanceolata*), Spring Gold (*Lomatium utriculatum*), Fawn Lily (*Erythronium oregonum*), Satin-flower (*Sisyrinchium douglasii*), Shootingstar (*Dodecatheon hen-*



*Broad-leaved  
Shootingstar, one of  
spring's annual arrivals at  
Playfair Park in the District  
of Saanich.*

*Photo | Rachel Grigg*

*deronii*), Harvest Brodiaea (*Brodiaea coronaria*), Menzies' Larkspur (*Delphinium menziesii*), Yellow Montane Violet (*Viola praemorsa*) and Pacific Sanicle (*Sanicula crassicaulis*). Camas flowers grow from a large root bulb, which was a staple starch in the diets of First Nations, from lower British Columbia to California. Prior to European settlement on Vancouver Island, the Coast Salish nations tended to this system through controlled wildfire and cultivation (McDadi and Hebda 2008). Suppression of fire due to human settlement is one of the main culprits of the continued decline of this system.

## *Restoration at Playfair Park*

Formed in 1999, the GORP is a thriving volunteer stewardship program run by Saanich Parks department and driven by a volunteer stewardship committee. It has subsequently been incorporated into the broader Saanich Pulling Together Volunteer Program, which works to enhance and preserve threatened ecosystems and remove invasive species from natural areas throughout Saanich. Adjacent farming and development throughout the 20<sup>th</sup> century has put pressure on urban forests like Playfair Park, with symptoms including the presence of invasive species such as Orchard Grass (*Dactylis glomerata*) and English Ivy (*Hedera helix*).

English Ivy and Himalayan Blackberry have been removed along the western edge of the park. The focus of the restoration effort, however, has been on bringing back the wildflowers. As is the case with most Garry Oak meadow wildflowers in urban areas, those in Playfair Park have become overgrown with turf grasses and the



*(Clockwise from top left) The ground on the left has been solarized for two months to kill invasive grasses, while Camas and other wildflowers lay dormant and unaffected deeper underground. Ground cleared of grass by smothering with leaf mulch, progressively pulled back as the grass dies. Camas and Shooting Star can be seen sprouting through leaf mulch.*

bunchgrass Orchard Grass. Much of the restoration work occurring in the park involves removing the grasses and replanting native wildflowers. This painstaking work has been championed by the park's steward, Colleen O'Brian, who has spent years experimenting with different approaches to removing the grasses. Herbicides in general, and in particular the graminicides (grasses are in the family *Gramineae*), which directly target grasses and would be helpful on this site, are prohibited and therefore not an option.

In order to remove the grasses, Colleen has spent hundreds of hours manually pulling out the individual tillers (shoots) that make up



*Cordoning off restoration sites at Playfair Park discourages disturbance from passersby, while a cedar split rail fence along the site's southern border offers returning species some protection from trampling by parkgoers and encourages recreational use of trails and lawn areas. (Opposite page) A musician enjoys the peace of Playfair Park.*



Photo | Rachel Grigg

a bunch of Orchard Grass. Once the site is free of bunchgrasses she covers it with black plastic or landscaping cloth for a couple of months, allowing the heat of the sun to kill unwanted species—a procedure known as solarization. Colleen then follows this with composting mulch technique spread over the site.

Leaf mulch has also been used to kill grasses around rocky outcroppings. The leaf cover is gradually moved outward, with more leaf mulch added to expand the area of dead grass and exposed ground. These techniques have worked very well for Colleen in restoring the Garry Oak meadow at Playfair Park. She tries to remove the grasses with as little disturbance as possible to the wildflowers still living underground. Sprouting wildflowers can be seen in areas where leaf mulch has been pulled back. The park now boasts a population of several hundred rare Yellow Montane Violet, a small number of the rare Menzies' Larkspur, in addition to Common Camas and Great Camas, Harest Brodiaea, Shooting Star, Satin-flower and Pacific Sanicle.

*An Olive tree at Playfair Park:  
another example of a species  
native to the Mediterranean  
Basin enjoying the microclimate of  
the Olympic rain shadow.*



## *Playfair Park Tree Walk*

The Playfair Park tree walk begins with the large Douglas-fir at the eastern end of the park. A large veteran tree, this Douglas-fir is estimated to be more than 150 years old and was part of the original forest. Before starting to walk along the northern edge of the park, look towards the path coming out of the forest on the southern edge.

Note the Olive tree on the corner where the path opens onto the lawn. In late summer this tree has a healthy crop of olives. But remember, olives straight from the tree are not pleasant to eat—olives have to be soaked and softened in brine first.

From the Douglas-fir, crossing over to the northern edge of the park, there are examples of:

- European Mountain Ash, also known as the Rowan Tree, the berries of which are eaten by

many birds, including Cedar Waxwings and American Robins.

- Two Black Walnuts, located in a residential backyard.
- Eastern White Cedar, which is in the same genus (*Thuja*) as our local Western Redcedar, but does not grow as tall and lacks the shredding bark so characteristic of the Western Redcedar.
- Eastern Redbud, with its magenta-pink flowers, which grow directly from the trunk. Native to eastern Canada and the United States, this small tree's green twigs have been used to spice venison, giving it the common name "Spicewood".
- Bigleaf Maple, also in a residential yard, is our native maple tree. As the name implies its leaves can be very large. Although it prefers wetter conditions, it can grow in drier areas once it has established. This species is an excellent wildlife tree, in part because moss and ferns commonly grow on its trunk and branches, supporting a rich diversity of insects which attract a variety of birds.
- Paperbark Maple, a medium-sized tree with shiny, orange-red bark, peeling off the trunk and branches like paper. This maple is native to central China.
- Apple tree, which actually may be part of the original orchards planted in Greater Victoria. (At one time this area was a major producer of apples and other fruit for the province; and some of these heritage trees are still scattered around the city.)

- Windmill Palm, a fan palm native to China and India, can grow in Victoria because of the region's relatively mild maritime climate. It is one of the hardiest of palms. The fruit of this one is blue-black.
- Eucalyptus, originally from Australia. There are two species of Eucalyptus that grow well in the northern latitudes. As a water-loving tree, it is often found in wet areas. It also has become invasive in California and has proven dangerous during windstorms (Bender and Harris 2013).
- Bitter Cherry (in a residential yard) is native to western North America. The bark of a cherry is somewhat shiny and red, and features wide, horizontal lines, "lenticel scars", on the trunk.
- Princess, or Empress Tree, a striking tree with heart-shaped leaves and large lavender-toned



*Lenticel scars on the bark of Bitter Cherry, the fruit of which, as suggested by its name, are inedible. (Opposite page) The dangling catkins of a Silk Tassel Bush.*



*Photos | Rachel Grigg*

flowers—interestingly enough, the flowers precede the leaves in the spring. Because it is pollution-tolerant, fast-growing and attractive, it is a common choice for parks.

- Southern Magnolia. Magnolia is an old genus of trees that evolved before bees; their large flowers are thought to have developed to attract beetles for pollination.
- European Beech (in a yard) has very smooth bark and its branches look as if they have been sculpted onto the trunk from clay.
- Silk Tassel Bush, or *Garrya*, the male plant exhibiting ornamental hanging tassels, much more impressive than those of female *Garryas*.

Continuing along the western edge of the park, near a condominium development, there is a weeping variety of the Atlas Blue Cedar. Leaving the park through its southern entrance, there are a number of notable street trees, including

Wildlife trees like this one at Playfair Park are indicated by plaques bearing a pileated woodpecker and a "Do Not Cut or Disturb!" message, under order of the Ministry of Environment, Lands & Parks and the Ministry of Forests.

(Opposite page) A late rhododendron blooms in mid-August, at Playfair Park.



a Norway Maple (by the park sign), Giant Sequoia (Kathleen Street), Butternut Tree (Kathleen Street), Horse Chestnut (Kathleen Street), White Poplar (Duke Street), Sweet Gum (Duke Street), Ginkgo (Duke Street), Pissard Plum (Dartmouth Place), Lawson Cypress (Dartmouth Place), Colorado Blue Spruce (Dartmouth Place), and Arbutus (Tattersall Drive).

### *Rhododendron Garden at Playfair Park*

A large rhododendron garden was planted in Playfair Park in the late 1950s by the newly-formed Arboretum Society of the Pacific Northwest, and opened by the patroness of the society Mrs. Frank Ross in 1959 (Holland, et al. 2014). Specimens in the garden were donated by nurseries and other arboretums and now include about 650 rhododendron species and their hybrids, 600 Azaleas (some native to eastern North America), 45 Camellias, Heather, Berberis, Dwarf Junipers and companion plants. Although the rhododendron garden is still impressive, many of the original plants perished over the years; the Arboretum Society itself disbanded in 1980 (Holland, et al. 2014).



# Victoria's Urban Food Forest

The intersection of North Park and Chambers epitomizes the Fernwood neighbourhood, an area of Victoria known for its dedication to principles of sustainability. The Fernwood Urban Village, Chambers Street Allotment Garden and the Victoria Compost Education Centre are testaments to food security and sustainable urban agriculture. On this walk we will be exploring several examples of community gardens: the Chambers Street Allotment Garden, Springridge Commons and Haultain Commons. There are many interesting street trees to be discovered along the way, as well as evidence of the orchards once so productive in this part of Victoria.

Looking at the densely-populated city Victoria has become, it is remarkable to think the city was once a major fruit producer for the province in the 1800s. Remnants of these orchards can still be found in the yards of many homes; and neighbourhoods like Fernwood are sparking renewed interest in cultivating a food forest within the city—part and parcel of a larger strategy encouraging food security on Vancouver Island. Fernwood's Neighbourhood Resource Group (NRG), Transition Victoria Food Group and the Greater Victoria Compost Education Centre have been instrumental in promoting the urban food forest concept. Walking the streets and communal gardens of Fernwood, the potential of the urban forest to supply food is apparent.

*The Fernwood  
Community Garden  
shares a location with  
the Victoria Compost  
Education Centre, on  
Chambers Street in  
Fernwood.*

*Photo | Rachel Grigg*



## *Victoria Compost Education Centre*

The Victoria Compost Education Centre has several examples of composting techniques on-site and offers workshops on how best to compost kitchen and garden waste. Just to the right of the entrance is a Bing Cherry, a variety of cherry known for its sweet fruit. On the left side of the entrance is a Black Turkish Fig, a tree commonly planted for its hearty growth and abundant fruit.

Towards the back of the Centre's property is a Yellow Willow. In an attempt to keep water on site this part of the Centre has been designed to collect water, funnelling it towards the willow. This and other methods used to catch and direct rainwater to stay on-site are common practice in low-impact developments. Cities usually have large areas of roads, sidewalks and rooftops, which channel water directly into storm drains, preventing it from soaking into the ground. This creates two major problems: first, large volumes of water entering storm drains flood the creek beds that receive the stormwater. This scours their banks and destroys sensitive habitat. Second, little to no water is made available for groundwater recharge, compounding drought conditions during dry summer months.

Yellow Willow is invasive and is not used in restoring local habitat. It occurs in natural areas such as nearby Rithet's Bog, where it displaces three native willow species: Pacific, Hooker's and Scouler's Willows. Yellow Willow branches can be used to weave baskets, as well as stimulate root growth for other plants—of which the Centre takes full advantage. Willows will easily grow from cuttings because their bark produces the substance



salicin, which stimulates root growth in cut stems (Kuzovkina and Quigley 2005). “Willow water”, water with short sections of willow left soaking in the sun for about week, can then be used to induce root growth in stems from other plants. Look closely, and you will see many branches have been harvested from the Centre’s willow.

Another water-loving tree found at the Centre is a Eucalyptus. This species grows very quickly and in some tropical countries is used to produce pulp. It is ready to harvest in just seven years. Because it grows so quickly it is sometimes planted as an ornamental tree. This appealed to foresters in the late 1800s, but Eucalyptus has become invasive and

*The branches of the Yellow Willow planted in a corner of the Victoria Compost Education Centre are used to start rooting in cuttings of other plants.*

*Photo | Rachel Grigg*

presents a serious (sometimes fatal) problem in urban settings. Its bark is extremely flammable and high winds can lead to limb loss or blowdown. In California, the Eucalyptus has become a much-debated restoration problem—on top of out-competing native tree species, it can deplete groundwater in an area.

Yet Eucalyptus trees have become common Monarch butterfly roosts; in fact, the migratory species has come to rely on it for survival. Efforts to restore the threatened populations of Monarchs now include planting more of the invasive Eucalyptus. The reliance of threatened and endangered species on non-native invasive species is increasingly common (Venton 2013). This has led to the concept of the novel ecosystem, a model which accepts there are unique species associations that have emerged from an altered landscape and which have become the norm. So far, Eucalyptus has not naturalized in Victoria as it has in California, but there are concerns this may one day happen as a result of climate change.

## *Allotment Gardens*

Allotment gardens are a type of community garden where members pay an annual fee. Members look after and harvest their own plots, mainly growing vegetables and shrubs, though fruit and nut trees often make up part of a common space within an allotment garden. In the Fernwood Community Garden, three trees tower over the plots. A Black Walnut in the centre was planted well before the garden's establishment. Walnut trees are not a wise choice for a garden because the leaves can be toxic to other plants. Along the Chambers Street

side of the garden are two plum trees. On the corner of North Park and Chambers is a Stag-horn Sumac. This is a low growing tree, with red fuzzy seeds in clusters found at the ends of the upper branches. These seeds are a source of food for many overwintering birds. A lemony spice called sumac is similar, but is derived from the Middle Eastern variety of the species.

### *Yukon and Chambers Park*

Before walking towards Springridge Commons, the small park one block away is worth a look. The park is home to a Black Locust, Bitter Cherry and Giant Sequoia. Black Locust is native to eastern Canada, but is used as a street tree in Vancouver and Victoria. It can become invasive, however (as it has in Vancouver), displac-

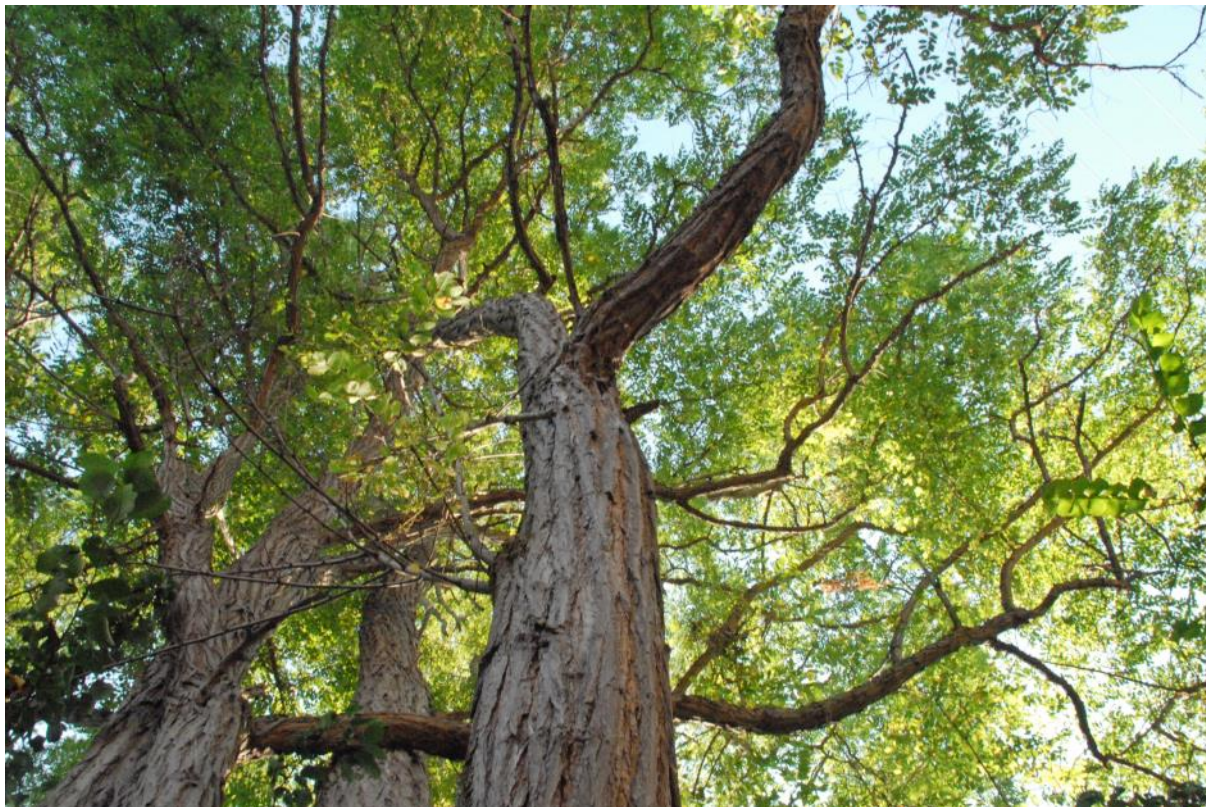
*A colourful Staghorn Sumac in bloom at the Fernwood Community Garden. The species is native to eastern North America.*



*Photo | Rachel Grigg*

*Black Locust trees in the Fernwood neighbourhood. A popular and fragrant street tree in North America, it is also used as a honey plant in the eastern United States and Europe.*

*Photo | Rachel Grigg*



ing native tall shrubs and small trees. Black Locust is a legume and has pods. The trees have the ability to fix nitrogen in the soil, which is usually considered a positive characteristic. But plants associated with the local endangered Garry Oak ecosystem are adapted to nitrogen-poor soils and once nitrogen levels are elevated, the conditions are ripe for invasive grasses to move in. These quickly out-compete our native grasses and meadow wildflowers.

A few Lombardy Poplars can be seen along Chambers Street. These are very tall, narrow, non-native trees. Routinely planted as wind breaks in agricultural areas, these poplars will grow quickly, sometimes two to three metres in a year. As with most fast-growing, water-loving trees (willow being another example), the roots may disrupt sidewalks and the foundations of houses. Several other rows of this species can be seen around the neighbourhood.

Walking north along Chambers Street, on the other side of the street is a London Planetree. This particular specimen, unfortunately planted under some telephone wires, has been very heavily pruned and stressed, as can be seen from the many burls on its trunk—evidence of fungal infections.

# Fernwood

## *Springridge Commons at Chambers Street and Gladstone Avenue*

Victoria's oldest public permaculture garden, Springridge Commons was developed from an old school bus parking lot. When the property was made available for other uses, the community reclaimed the land as a commons for growing food. Community groups like the Fernwood Neighbourhood Research Group (NRG) and LifeCycles helped transform the parking lot into a sustainable food-producing community asset. Over the years the garden has gone through many changes, with its current state shown in this diagram.

Because the site was once a parking lot, there were concerns about whether toxic chemicals in the



ground would compromise plans for an edible garden. There are regional examples of community gardens being placed on toxic ground, as is the case with the commons garden on the corner of Burrard and Davie Streets in Vancouver. Since Springridge Commons' site once housed a gas station, the community decided to install a garden of raised beds, thereby eliminating contact with any contaminants until future phases could be determined. Fortunately the majority of the ground was determined to be safe and no temporary measures or remediation efforts were required. And where a small area of contaminants was found, the solution was to grow willows for basket-weaving rather than edible plants.

The plants in the garden are listed in the table below. As you can see, they represent a wide selection of species which produce edible parts for people and/or food for wildlife.

### *Springridge Commons Plants*

<b>Code</b>	<b>Latin Name</b>	<b>Common Name</b>
Apple	<i>Malus domestica</i>	Apple
Ao	<i>Elaeagnus umbellata</i>	Autumn-Olive
Am	<i>Aronia melanocarpa</i>	Chokeberry
Bar	<i>Berberis sp.</i>	Barberry
Bb	<i>Phyllostachys nigra</i>	Black Bamboo
Bd	<i>Buddleja davidii</i>	Butterfly Bush

Bl	<i>Robinia pseudoacacia</i>	Black Locust
Cc	<i>Ribes odorantum</i>	Clove Currant
Cea	<i>Ceanothus sp.</i>	California Lilac
Ch	<i>Corylus avellana 'contorta'</i>	Corkscrew Hazelnut
Cherry	<i>Prunus avium</i>	Wild Cherry
Cr	<i>Cynara cardunculus</i>	Cardoom
Damson	<i>Prunus domestica</i> subsp. <i>insititia</i>	Damson Plum
Eb	<i>Sambucus nigra</i>	Elderberry
Fig	<i>Ficus carica</i>	Desert King Fig
Gb	<i>Ribes uva-crispa</i>	Gooseberry
Gi	<i>Ginkgo biloba</i>	Maidenhair Tree
Go	<i>Quercus garryana</i>	Garry Oak
Goumi	<i>Elaeagnus multiflora</i>	Goumi
Hbc	<i>Viburnum trilobum</i>	Highbush Cranberry
Hz	<i>Corylus avellana</i>	Hazelnut
Ip	<i>Oemleria cerasiformis</i>	Indian Plum
Ln	<i>Laurus nobilis</i>	Sweet Bay Tree
Lo	<i>Levisticum officinale</i>	Lovage



Strawberry Trees are an Old World *Arbutus*, sharing the same genus as our native *Arbutus* tree.

Ma *Acer sp.*  
 Mb *Rubus sp.*  
 Medlar *Mespilus germanica*  
 Morello *Prunus cerasus*  
 Nr *Rosa nutkana*  
 Og *Mahonia aquifolium*  
 Pg *Cortaderia selloana*  
 Pl *Prunus domesticus*  
 Pm *Morus nigra*  
 Pn *Physocarpus capitatus*  
 Ra *Alnus rubra*  
 Rasp *Rubus idaeus*  
 Rc *Ribes rubrum*  
 Rfc *Ribes sanguineum*  
 Rr *Rosa rugosa*  
 Rs *Rosmarinus officinalis*  
 Sbt *Hippophae rhamnoides*  
 Sc *Castanea sativa*  
 Sk *Amelanchier alnifolia*

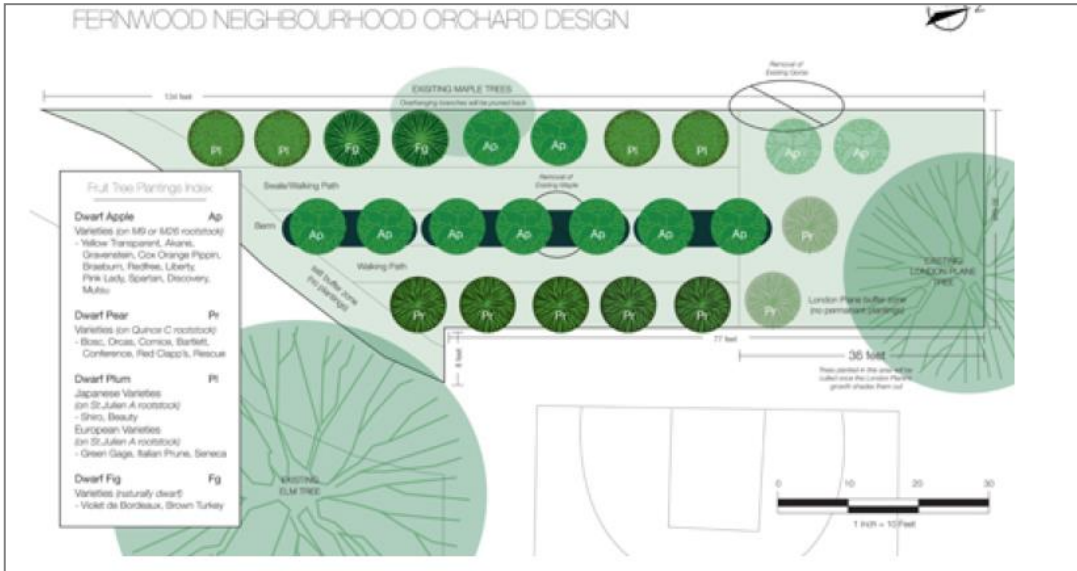
Maple  
 Marionberry  
 Medlar  
 Sour Cherry  
 Nootka Rose  
 Oregon Grape  
 Pampas Grass  
 Plum, "Late Italian"  
 Black Mulberry  
 Pacific Ninebark  
 Red Alder  
 Raspberry  
 Red Currant  
 Red Flowering Currant  
 Ramanas Rose  
 Rosemary  
 Sea Buckthorn  
 Sweet Chestnut  
 Saskatoon Berry



Photo | Britton Jacob-Schram

Native Nootka Rose, a hearty, fragrant rose often found on the border between habitats.

Ss	<i>Rhus lyphina</i>	Staghorn Sumac
St	<i>Arbutus unedo</i>	Strawberry Tree
Tay	<i>Rubus sp.</i>	Tayberry (Blackberry x Raspberry)
Wh	<i>Hamamelis sp.</i>	Witch-hazel
Wm	<i>Morus alba</i>	White Mulberry



## Fernwood Neighbourhood Orchard

The Fernwood NRG, working with the City of Victoria, planted the Fernwood Neighbourhood Orchard in the fall of 2013. It consists of three rows of trees on terraces, including varieties of apples, plums, pears and figs.

*Hornbeam branches catch the late afternoon light at the corner of Pembroke and Stanley Avenue.*

*Photo | Rachel Grigg*



## *Tree Walk along Pembroke Street*

Several large Hornbeam trees flank Pembroke Street. These small, hardwoods are members of the birch subfamily and are noted for their characteristic growth form and dense, thin branches that arch upward in neat curves. There are some smaller examples of Hornbeams growing along Government Street, in planters outside the Bay Centre and Munro's Books.

The ash tree here is a White Ash. Ash trees in general seem to be relatively tolerant of pollution in the city; and the Green Ash is considered one of the best city trees. Seeds of ashes are similar to those of maples, except they grow in clusters instead of pairs and are narrower.

Also in the area is a young Dawn Redwood. As previously mentioned, the Dawn Redwood is a conifer, but it is also deciduous, losing its nee-

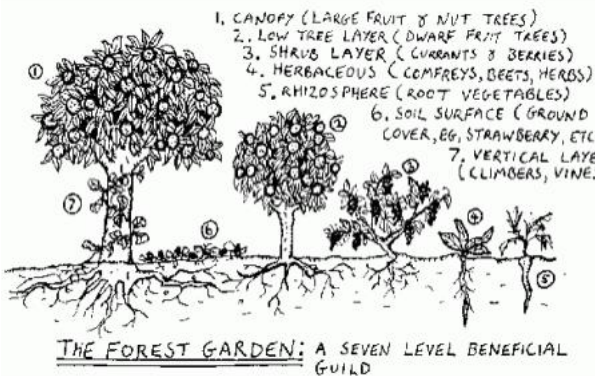
(Clockwise from top left) A heritage pear tree, hidden behind a hedge, still produces fruit near the corner of Fernwood and Pembroke Street.



A Japanese Cedar catches the eye at Fernwood Road and Walnut Street.



A diagram showing the permaculture layering of an edible, cultivated forest. A number of Fernwood homes have adopted the forest garden concept.



(Opposite page) A large Eucalyptus, seen from Bay Street, near Fernwood Road.

Photos | Rachel Grigg

dles in winter just like larches. It has a characteristic trunk, seemingly woven together at its base. A house on the corner of Pembroke Street and Fernwood Road (2100 Fernwood) has a Pear tree growing in its front yard. A relatively old tree, it is likely a remnant of the city's first orchards.

### *Along Fernwood Road between Pembroke and Haultain Streets*

Looking north on Fernwood Road, at the corner of Walnut Street, take note of the unique conifer in a yard. This is a Japanese Cedar. It looks very similar to a juniper; and, like junipers, it has patches of dead branches in the foliage. Another White Ash is here, as well.

### *By Bay Street*

From Fernwood, in a backyard west along Bay Street on the left, is a large Eucalyptus. This tree is more than twice the size of the one at the Victoria Compost Education Centre. In the boulevards on both sides of Fernwood Road are rows of large Horse Chestnuts. On the

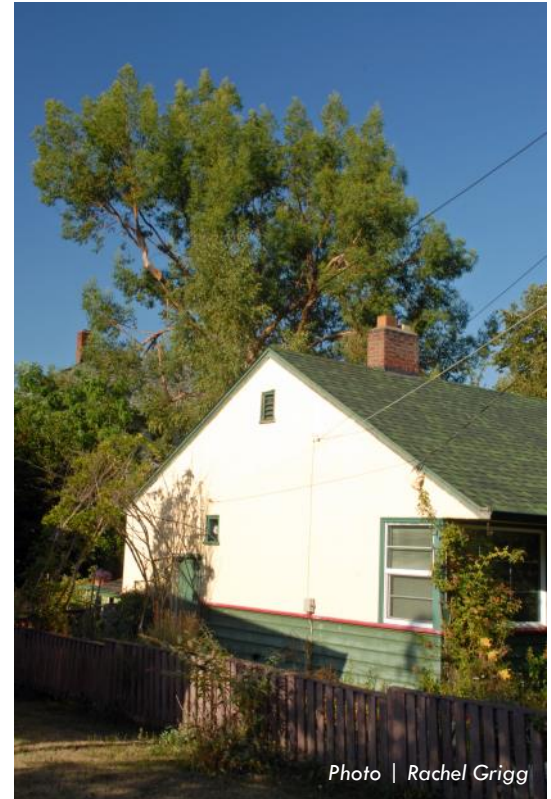


Photo | Rachel Grigg

Horse Chestnuts  
(above) create a  
drive-thru  
canopy along  
Fernwood Road,  
north of Bay Street;  
while smaller  
Crabapple Trees  
(below) line both  
Roseberry  
Avenue and  
Haultain Street.



Photos | Rachel Grigg

left is a small Monkey Puzzle Tree in a front yard. Its close proximity to the sidewalk makes for a good opportunity to feel the triangularly shaped “needles” which defend the tree from grazers. In a nearby front yard is a small Deodar Cedar; also close to the sidewalk, passers-by can easily reach out and feel how soft its needles are.

### *Along Haultain Street towards Haultain Corner*

Large Crabapple Trees border Haultain Street for several blocks. Crabapple fruit look just like rose hips—not a surprise, considering Crabapple is in the family *Rosaceae*. On the south side of the street grows another Windmill Palm.



*Haultain Commons, located at the northwest corner of Haultain and Asquith Streets, features diverse examples of do-it-yourself urban agriculture, including Artichoke and Goji Berries, pictured.*

## *Haultain Commons*

Haultain Commons is a labour of love by the owners of the home nearby. The garden is an eclectic mix of edibles, including Goji berries, Goumi berries, blueberries, artichokes, strawberries, broccoli, thyme and Walnut trees. While the small garden looks as though it requires a good amount of maintenance, the owners are helped by the Sustainable Living and Urban Gardening Skills (SLUGS) program, which regularly organizes work parties for planting and weeding. The diagram of the “forest garden” demonstrates the philosophy behind the permaculture approach to the plantings.

A Giant Sequoia also features prominently along the side yard of the house.

## *Walking up Asquith Street toward Bay Street*

Adjacent to Haultain Commons, a Beech Tree straddles the property line between the first two houses on the left (west side) of Asquith Street.

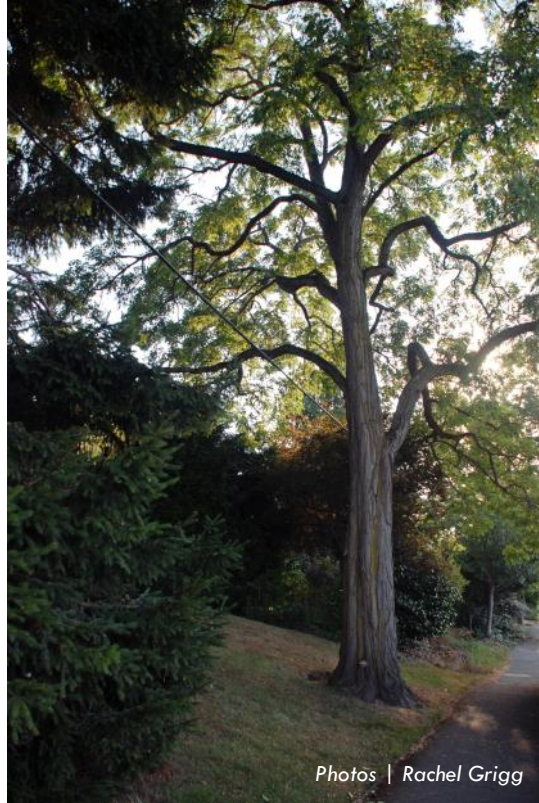
## *Queens Avenue*

From Asquith Street, heading west along Bay Street, then south on Fernwood Road, a quick right turn onto Walnut Street, will connect to Spring Road. Where Spring meets Queens Avenue, there are twin spruces: a Colorado Blue Spruce and a Norway Spruce. Farther along on Queens Avenue are three large Black Locust trees. At the end of Queens Street (at Chambers Street) three White Pines grace a neighbourhood home. These are im-

*A Colorado Blue Spruce is hard to miss at the corner of Spring Road and Queens Avenue in the Fernwood neighbourhood. To its right, is a Norway Spruce. Note the colour variation between the two (opposite page, top and centre left).*

*(Opposite page, bottom left and right) A bracket fungus, a wood-decay fungus, could spell trouble for this Black Locust at Queens Avenue.*





Photos | Rachel Grigg

posing trees, with five-needles per fascicle and impressive clusters of slender cones.

A large, very healthy, Prickly Pear Cactus is nearby, at 1212 Queens Avenue. The succulent is set in a gravel bed, which likely helps capture much-needed heat. In the same yard is the small pendulous form of a Weeping Willow.

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*Photo* | Andrzej Kielbowicz

