



The Butterflyway Project

Butterflyway Ranger Training Manual

2020



DAVID SUZUKI
FOUNDATION
One nature.

davidsuzuki.org/butterflyway



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THANKS TO OUR NATIONAL PROGRAM PARTNERS:



Welcome to the Butterflyway Project!



The David Suzuki Foundation's Butterflyway Project is a citizen-led movement that is bringing nature to neighbourhoods throughout the country, one butterfly-friendly planting at a time.

It is powered by keen teams of Butterflyway Rangers that are creating local pollinator patches made up of native wildflowers, plants and shrubs that provide food and shelter for local bees and butterflies. These vibrant habitats are in private, public and institutional spaces, from laneways, yards and balconies to parks and schoolyards. The project is based on the David Suzuki Foundation's Homegrown National Park Project, which began in 2013. The award-winning, citizen-led project started by creating butterfly-friendly corridors in three Toronto neighbourhoods, establishing pollinator patches in parks, front yard rain gardens and schoolyard canoe planters.

In 2018, the Butterflyway Project recruited and trained 192 Rangers across the country, distributed 22,000 native wildflower and seed packs, established 200 pollinator-friendly patches with our Rangers and created Butterflyways in the greater Montreal area, Toronto, Scarborough, Markham, the District of North Vancouver and Richmond, B.C. With Vancouver Rangers joining in 2019, we have strengthened the momentum of this project by inspiring people and communities to join us. Butterflyway Rangers in British Columbia will also join BIMBY Butterfly B.C., a citizen-scientist component to identify butterfly species in the Lower Mainland.

As David Suzuki says, we are living in a unique time. We have the opportunity to be part of one of the biggest movements in human history: the transition to a sustainable society. We all have a role to play. At its heart, the Butterflyway Project is about fostering community, deepening our connection with nature and discovering the skills and strengths we have to offer. On behalf of the staff at the David Suzuki Foundation, we want to thank you for your support and commitment to celebrating nature in the city. We are truly privileged to work with such talented, passionate people. We hope that your experience as a Butterflyway Ranger will be energizing, inspiring and fun. We look forward to working with you throughout the upcoming year.

Butterflyway Ranger motto

We want greener, healthier neighbourhoods. We want more wildflowers blooming and more butterflies flitting. We want more splashing in puddles, more bicycle bells ringing and more children outdoors playing. We want more potluck dinners, more outdoor movies and more street art murals. We want more joy and more community. We are Butterflyway Rangers.

Butterflyway Rangers care, connect, share and lead. Butterflyway Rangers will help make their communities greener and healthier, one fun planting project and community event at a time. They will create opportunities, connect people and champion ideas.

Rangers are the public faces of the Butterflyway Project. They meet awesome people and learn from and empower each other. The goal of the Butterflyway Project is to plant habitat for butterflies and local bees in communities throughout the country.

Truly,

Jode, Winnie, Julie and Lindsay



We are nature. All people, and all species.

We are interconnected with nature, and with each other.
What we do to the planet and its living creatures, we do to ourselves.

This is the fundamental truth guiding our work at the David Suzuki Foundation. Founded in 1990, the David Suzuki Foundation is a national, bilingual non-profit organization headquartered in Vancouver, with offices in Toronto and Montreal. Through evidence-based research, education and policy analysis, we work to conserve and protect the natural environment, and help create a sustainable Canada. We regularly collaborate with non-profit and community organizations, all levels of government, businesses and individuals.

‘Our **mission** is to protect nature’s diversity and the well-being of all life, now and for the future. Our **vision** is that we all act every day on the understanding that we are one with nature.’

Guiding policies

Ethical Gift Acceptance Policy We take donations only when we are certain they will further our charitable mission. We decline gifts that may undermine our integrity, restrict our liberty of action or damage our reputation. We do not accept direct donations from Canadian governments.

Indigenous Peoples Policy The David Suzuki Foundation recognizes the rights and title of Indigenous Peoples, guided by the United Nations Declaration on the Rights of Indigenous Peoples (2007) and the Final Report of the Truth and Reconciliation Commission of Canada (2015). We commit to respectfully engage with Indigenous Peoples when our work concerns their interests.

Science Integrity Protocol The David Suzuki Foundation uses evidence-based information and analysis to promote progressive policy-making and public awareness of complex environmental issues. To uphold scientific principles, we commit to peer review of research and analysis, transparency and access to relevant information, and accuracy in our communications.

Lower Mainland butterflies and wild pollinators need help

For the fourth year, Lower Mainland residents will participate as Butterflyway Rangers in the eight-month project to help butterflies and wild bees. Between Vancouver, Richmond and the District of North Vancouver, more than 150 Butterflyway plantings have been created since 2017. The Butterflyway project's goal is to empower citizens to take a hands-on approach to help wild pollinators. Participants connect through neighbourhood planting events and school activities to help alleviate the environmental challenges wild pollinators face.

According to the Xerces Society, the sharp decline in western monarch butterflies continues to cause concern. Experts in B.C. and the Lower Mainland monitor the health of migratory butterfly species like West Coast lady and painted lady because drought, wildfires, rain storms and flooding in northern and southern California make it challenging for them to complete their life cycles during migration.

Carol Both is a Butterflyway Ranger and vice-president and program chair of the Sunset Community Garden committee. "Being a part of the 2019 David Suzuki Foundation Butterflyway Project as a Butterflyway Ranger reinforced my belief that a small group of dedicated, like-minded people can make a big difference in many ways in any community," she said.

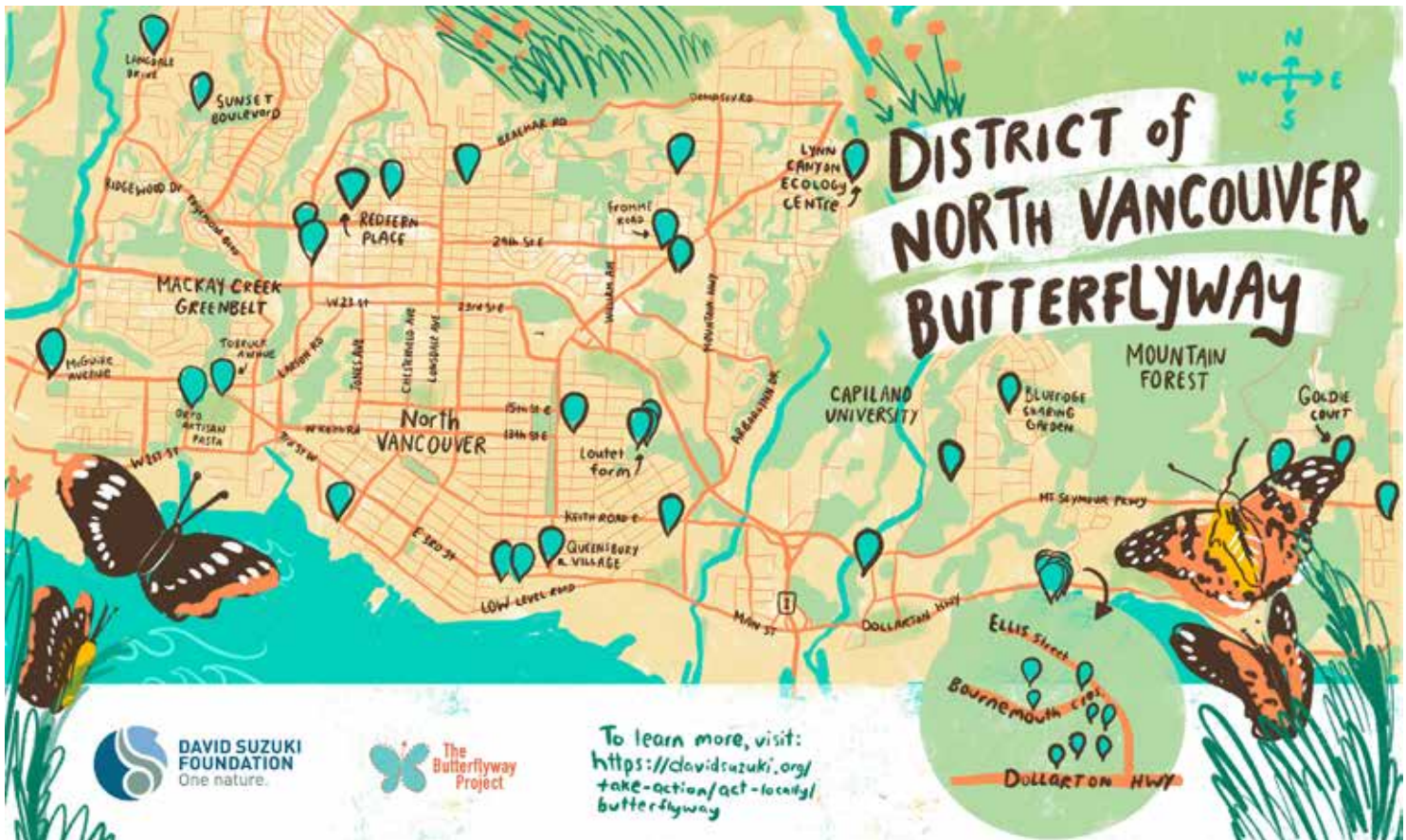
According to Lori Snyder, Vancouver Butterflyway Ranger and Indigenous herbalist and medicinal educator, "Education is the key. When I am sharing knowledge with others to take actions, we discover our responsibility as caretakers of Mother Earth."





About the Butterflyway Project

The national Butterflyway Project took root in the east when Homegrown National Park Rangers were recruited to help plant milkweed for dwindling monarch butterfly populations. When the western Butterflyway Rangers joined the movement, most understood that western monarchs are rare in the Lower Mainland. But they joined because they know climate change affects wild pollinators and butterfly species in the west as much as the east. Since the initial launch in Richmond and Victoria four years ago, western Butterflyway Rangers have developed a deep interest in learning about the butterfly species that show up in the west and keeping tabs on those that no longer make it here. They have also been studying and documenting coastal butterflies and the native pollinator plants they rely on.



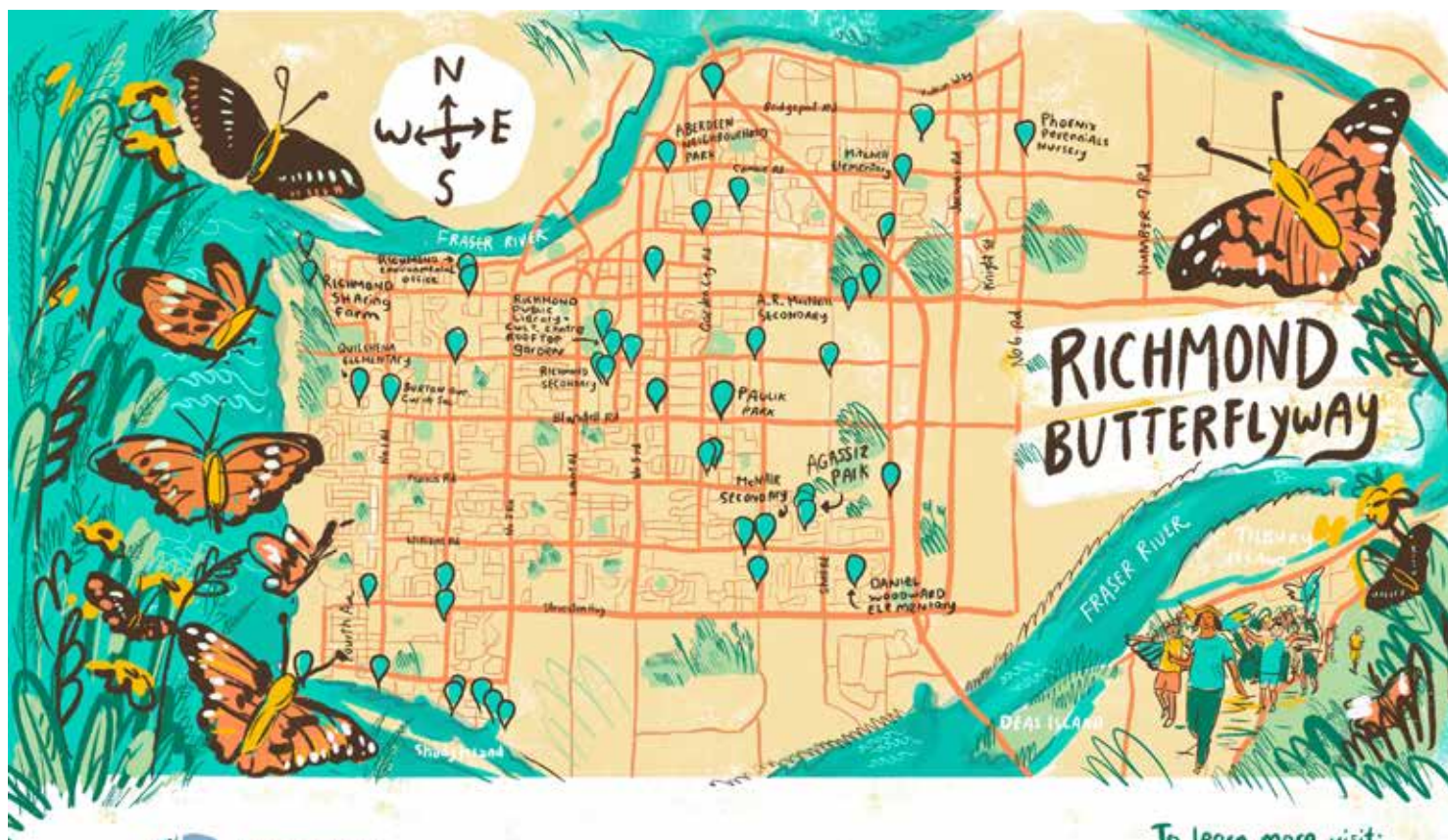
In 2020, Vancouver, Richmond and District of North Vancouver Butterflyway Rangers will expand the scope of their work from the past season.

Apart from planting native wildflowers to help build and promote municipal- and neighbourhood-scale highways of pollinator habitat, Butterflyway Rangers will:

Explore the relationship between indigenous plants, wild pollinators and humans, with support from the Museum of Vancouver.

As citizen scientists, identify prevalent butterfly species through the BIMBY (Butterflies in My Backyard) initiative. Butterflyway Rangers will be supported by Tara Moreau from UBC Botanical Garden to connect citizens with science for conservation work.

Those passionate about native plants and wild pollinators like butterflies, bees and birds can join the Butterflyway Project and make a real difference for critical species that humans depend on for food and well-being.



To learn more, visit:
<https://david Suzuki.org/take-action/act-locally/butterflyway>



Our vision of community leadership

Vision

- This Butterflyway Ranger training is the beginning of an innovative and meaningful community leadership program. It seeks to build a network of highly engaged and trained community champions working locally to engage residents to reconnect with and explore the nature around them. They will help transform their neighbourhoods and communities, shaping new norms that foster healthy, strong communities.
- The Butterflyway Ranger team will build community-level programs that transform our relationship with nature, each other and ourselves, fostering and promoting personal and environmental health.

Program

- To build strong, healthy communities through outdoor and environmental programs.
- To recruit, empower and inspire teams of community leaders to build grassroots programs that explore nature and create patches of pollinator habitat in yards, parks, schoolyards and boulevards.
- To physically reconnect community leaders and the public with nature through local initiatives.
- To move beyond raising awareness to effecting meaningful, transformative social change by connecting citizens to the environment.
- To design and implement an efficient and highly effective organizational structure to coordinate the efforts of all community teams and to provide consistent support, training and inspiration.

Guiding principles and values

Our vision of community leadership is inspired by the principles of deep ecology and the long history of social movements. We seek to awaken in the hearts of Rangers the values they hold dear and provide them with the tools to act on those values.

EXPANDED SENSE OF SELF: The science of ecology tells us that we are all interconnected and interdependent. But we understand these facts experientially, not just analytically. Ecological consciousness means we experience ourselves differently, understanding our relationships with other life forms and the ecosystems of which we are a part.

EQUALITY: Every person has a unique role to play in the transition to a sustainable era and has an equal stake in our success. You don't need to be an expert in science to fully participate in this transition. In its most radical form, equality means biocentric egalitarianism — the recognition that all life has value.

DIVERSITY: Our differences make us stronger. Diversity is critical to healthy living systems. Each element serves a purpose, providing feedback to help the system adapt and maintain balance. Strong human communities work the same way. We each bring a unique perspective, life history and vision to the table.

COMMUNITY AS MEANS AND ENDS: No one person or organization has the monopoly on saving the planet. Building community and deepening our connections with each other not only provides the collective voice needed for global change, it models the reality of our interconnectedness. Synergy is only generated by individuals working together; thinking together is an ethical act and will provide the new ideas and energy lacking when we work in isolation.

PROCESS VERSUS GOAL ORIENTATION: We are all in the midst of a great transition and no one knows the ending to the story. Instead of standing apart, trying to fix the environment or persuade people to change, we need to immerse ourselves in the unfolding. As individuals and organizations, we are products of the same problematic system we're trying to fix, so we must also be willing to change ourselves.

NETWORKS VERSUS HIERARCHIES: Ecosystems are better understood as networks, not hierarchies. Each element has a unique and essential role to play. Social movements must work the same way. For sustained engagement, each person must have a meaningful role to play that respects their unique experience and skills. We share leadership because everyone has an equal stake in our success.

Meet our Butterflyway Rangers

When **Kitty** joined the 2019 Butterflyway Project, she knew what she wanted to do. The challenge was how.

When she shared her plan with Butterflyway Rangers in our first group meeting, District of North Vancouver Rangers came out to lend a hand.

Handsworth Elementary teacher/Ranger Evan brought his students to help weed. Stephen and his Telus purple shirt superheroes showed up to help with the soil. Paula popped by to help place bark mulch along the planting sites. All the hard work paid off when Kitty and her planting team put the pollinator plants to bed.



Kitty reported back early June that yellow tiger swallowtails showed up. When Sally and Stephen dropped by to visit in early July, the Sunset Boulevard Butterflyway was teeming with life and colour from our pollinating friends. According to Kitty, this is only the beginning. She has much bigger plans for the Sunset Boulevard Butterflyway. Stay tuned.



Like many Butterflyway Rangers, **Patrick** plays many roles in life. If you see him on social media, you will know he's the Modo guy! But if you visit Patrick when he is off-duty, he is more the boulevard gardener and the bee guy.

Since Patrick joined the 2019 Butterflyway Project, he has applied his professional skills and personal passion to the project. Patrick put together a plant list and a plan. He drafted and delivered Butterflyway flyers to his neighbours along the three blocks near his home. He managed to convince 14 of them to purchase a plant kit that includes soil and butterfly-friendly plants. He ordered the plant kits, picked them up and delivered them to his neighbours in his "Bee-Mobile." Patrick is working with his neighbours this year to expand the reach. Go, Patrick!

Christine, Paul, Emma and Chris's

Ladybug Team was the first to start preparing the soil and planting. These photos were taken in early April. There are more to come. One of the most heart-warming experiences of the Ladybug Planting was seeing Butterflyway Rangers joining volunteers already working on the project. Our Rangers helped weed the entire block before they planted the pollinator plants — no pesticides, just people power! Impressive!





The Butterflyway Project found its way to St. Paul's Hospital's rooftop garden because **Zoe** applied to be a Butterflyway Ranger and brought the project to DIGS — the Downtown Intercultural Gardeners Society. To describe the folks at DIGS as generous doesn't do them justice. They donated their time, energy, brainpower and planting plots to make the hospital rooftop functional and welcoming for humans and nature. Butterflyway Rangers are so lucky to be embraced by

this group. The next time DIGS hosts a planting party, Butterflyway Rangers will show up to return the love they gave us!

In 2019, VIA Rail joined the Vancouver Butterflyway Project. **Josephine** is VIA's senior sales manager. Josephine joined the Butterflyway Rangers at the North Shore Butterflyway Lane celebration in 2018. When Butterflyway Season in Vancouver started in 2019, she applied and came to the training. When we planned the VIA planting, Josephine was there every step of the way.

The VIA team renewed the soil and planted native butterfly plants the Butterflyway project provided. When Josephine felt there was land for more pollinator plants, she got more! Apart from planting for butterflies, VIA also installed two bee homes on the Pacific Station rooftop. At the end of the season, Josephine and the VIA team hosted the Butterflyway Rangers for an awards ceremony.





To describe **Anita Lau**, a.k.a. Ms. Lau, as an amazing teacher doesn't quite cut it.

Anita is an elementary school teacher at Mitchell School, in a blue-collar neighbourhood on the east side of Richmond. When Anita joined the Butterflyway Project, she said she wanted her students to have the best experience. "We have a diversity of cultures, languages and a growing outdoor classroom. I believe a Butterflyway speaks the common language to all our families and students — one about

working together to look after the natural world in our neighbourhood." Anita believes a Butterflyway can bring students, parents and teachers together as "it would give us a meaningful goal to create a sanctuary in our urban jungle, spend time outdoors, learn about nature and celebrate community and stewardship."

Lynda is president of the Richmond Garden Club. She organizes monthly talks, an annual Mother's Day plant sale and garden tours, and writes a weekly online column for the Richmond News about gardening. She's also a Butterflyway Ranger. Lynda was the first Ranger to join in 2017 when the Foundation started the national program. In the three years since she joined us, she has taught Butterflyway Rangers how and where to plant. She has also generously offered two planting gardens in Paulik Park for Butterflyway Rangers to plant native wildflowers for pollinators. There is so much Lynda has given the Butterflyway Project and she is still coming up with great ideas to help improve the project.



In the 2018 Season, DNV Butterflyway Rangers **Stephen and Sally** led their team in naming the first DNV Butterflyway Lane at Bournemouth Crescent and Dollarton Highway. Sharen Rogers is the latest neighbour to join the Bournemouth Crescent/Dollarton Highway Butterflyway Lane. Thanks to Stephen and his Telus purple shirt heroes, Sharen managed to replace the old fence and plant pollinator plants along the Butterflyway Laneway. As the District of North Vancouver citizens joined the 2019 Butterflyway Project, DNV Butterflyway Rangers supported each other and celebrated the camaraderie of North Shore citizens working with District staff to plant for butterflies and wild pollinators.

This year, new rangers visited Stephen and Sally's beautiful Butterflyway Lane. The husband and wife team says what they did last year was just a teaser. Stephen has already brought back his Telus purple shirts to help continue the work. With the work done last year, Sally has turned the Butterflyway Lane into a lovely butterfly pathway dotted with beautiful wild flowers, and an information laneway where visitors can learn about local butterfly species in North Vancouver while wild bees, hummingbirds and butterflies zoom around.

In 2019, DNV Butterflyway Rangers gathered to celebrate the extension of Bournemouth Crescent Butterflyway Lane. Stephen is also helping with the iNaturalist BIMBY Butterfly projects and offering to share his Ranger experience with David Suzuki Foundation public engagement specialists.

The B.C. Butterflyway Project will produce a butterfly report in 2021. The continued support of Butterflyway Rangers is crucial to the success of our work. Thank you, Stephen and Sally.



How to create a pollinator patch

By Lindsay Coulter, Queen of Green

Even what seems like a small contribution — just a tiny flower pot or patch — can provide valuable pollinator habitat.

Want to help butterflies? Think beyond providing flowers for nectar in the height of summer. Many butterfly species we see in Canada don't migrate. You can provide habitat and food for their entire lifecycle — eggs, larvae, pupae and adults — throughout the year.



Whether you have a small plot in the big city or a few acres, transform your yard into a butterfly garden! You'll need:

- **Host plants:** Adults need a place to lay eggs where their caterpillars will forage. (Plant species that will get eaten and not just look pretty!)
- **Mud puddles:** Some butterflies rarely visit flowers. They prefer mud, poop (a.k.a. "scat" or "dung"), sap and rotting fruit.
- **Blooms from spring through fall:** Don't limit your garden to an end-of-July colour extravaganza. You'll need a diversity of native nectar plants to flower over a few months.
- **Overwintering habitat:** Consider not raking leaves to provide a butterfly nursery! Most butterflies in Canada overwinter as caterpillars, others as pupae. A few species winter as adults, hibernating in hollow trees, under bark and firewood piles, or in garden shed cracks and crevices. Few spend winter as eggs.
- **Sunshine:** Make sure you (or your neighbours) have sunny spots.
- **Nectar plants:** Most butterflies will feed from more than a few plant species

Think about the role of your yard

Is it a habitat source (high-quality patch that supports population increases)? Or is it more of an island?

Some yards can provide for one butterfly species' entire life cycle. Some are disconnected from other habitat patches.

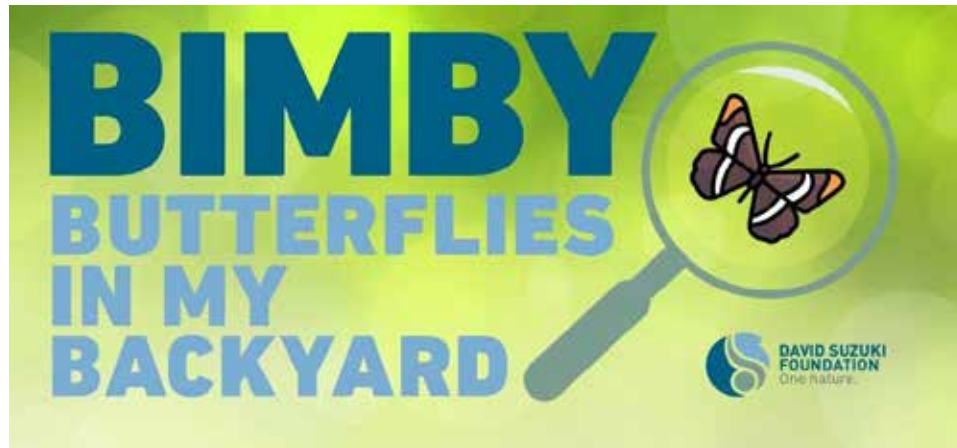
Walk around the block and view your neighbourhood through a butterfly's eyes. Chat with your neighbours and see what they're planting. Note possible connecting corridors between butterfly-friendly patches. Can schoolyards, boulevards and local green spaces where you live help support butterflies?

Choose native flowers and shrubs

- Butterflies need nectar plants for food and host plants to lay their eggs.
- Tiger swallowtails choose nectar plants like lilacs or bee balm; nearby willow, alder or apple trees can host larva.
- Painted ladies choose nectar plants like aster, cosmos and zinnia; host plants include thistle, mallow and hollyhock.
- Monarchs choose nectar plants like black-eyed Susan, Canada goldenrod, wild bergamot and common yarrow; host plants include the milkweed family. (There are four common milkweed species in Canada: swamp, a.k.a. rose; poke; butterfly, a.k.a. orange; showy and common. Choose the species native to your area.)
- To attract butterflies like the red admiral, tiger swallowtail and mourning cloak, you can also set up a nectar feeder using a solution of one part sugar to 18 parts water.

Did you know?

- Sunny days are best for butterfly watching.
- Some individual butterflies live only a week, but the flight season for a species may be more than a month — and the migrating monarch "super generation" may live for several months.
- In B.C., butterfly season runs from March through October.
- Females are slightly larger than males — because she carries the eggs!
- Butterflies and hummingbirds share many nectar flowers, so efforts to lure one may have the bonus of attracting both.



Butterfly illustration and design Anja Jane / anjajane.com

Sources:

Butterflies of the North Cascades. British Columbia Wild Life Watch by Denis Knopp and Lee Larkin

Butterflies of British Columbia by Crispin S. Guppy and Jon H. Shepard (2001)

Butterflies of British Columbia by John Acorn and Ian Sheldon (2006)

Butterflies, Discover Richmond, produced by Richmond Nature Park, Richmond Parks and Recreation and Richmond Trails

iNaturalist BIMBY Butterflies in my Backyard Project

Courtesy:

Butterflyway Rangers in the District of North Vancouver, Richmond and Vancouver

Denis Knopp

Dennis St. John

Tara Moreau from UBC Botanical Garden



PAINTED LADY ~ VANESSA CARDUI

LAST OBSERVED – 2019 between May to October.

Vancouver, District of North Vancouver – Seymour Provincial Park and Loutet Park, West Vancouver, Delta – George C. Reifel Bird Sanctuary, Richmond, Surrey, Tsawwassen, Chilliwack, Langley, Coquitlam, Manning Park, Simon Fraser University (Burnaby), Victoria, Tofino – Pacific Rim National Park Reserve, Ucluelet, Nanaimo, Parksville, Hornby Island, Salt Spring Island, Galiano Island, Squamish – Lillooet, Okanagan – Similkameen, Kamloops, Kelowna – Myra Canyon Trestles Trail, Kettle Valley Rail Trail, West Kelowna, North Okanagan, Central Kootenay, East Kootenay – Premier Lake, Courtenay, Colwood, Nelson, Thompson – Nicola, Glacier National Park, Columbia – Shuswap, Strathcona, Riondel

IN FLIGHT – May to October.

Migratory butterfly. Migrate from Southern US and Mexico in the Spring and return south in the Fall.

HABITAT – Open and disturbed areas. Painted Ladies can be found in the deserts of southern British Columbia and on the tundra, as well as in heavily wooded areas

HOST PLANTS – Thistles, borage, composites and mallows.

NECTAR PLANTS – Thistles, giant goldenrods, marigolds and everlasting.



WESTERN TIGER SWALLOWTAIL ~ *PAPILIO RUTULUS*

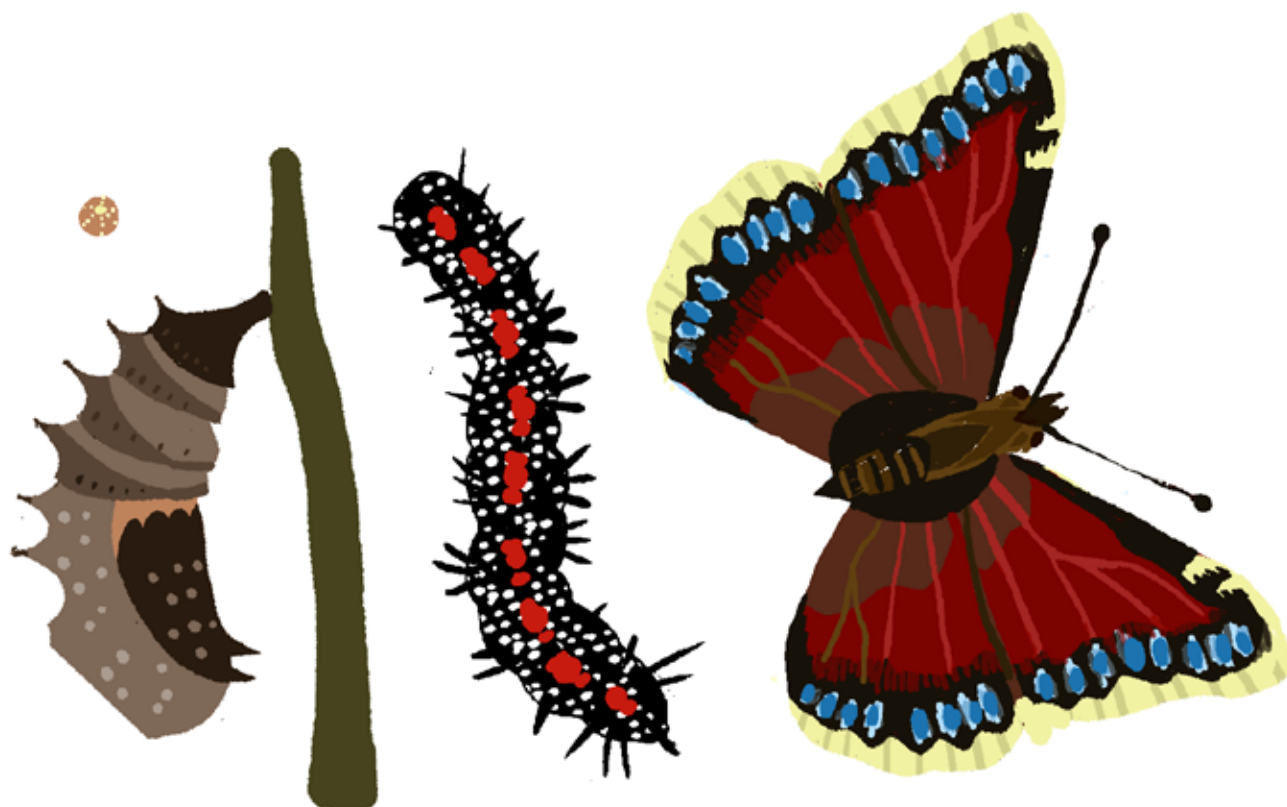
LAST OBSERVED ~ 2019 between May to early September: Vancouver – William Street, Meadow Trail, Southlands, Burrard Street, West Georgia Street, Stanley Park, Richmond – Iona Beach Park, District of North Vancouver – Butterflyway Lane on Bournemouth Crescent, Capilano River Regional Park, Goat Mountain, Lions Bay, Delta, Tsawwassen, Burnaby, Coquitlam, Langley City, Maple Ridge, Mission, Fraser Valley, Yale, Anmore, Pemberton, Squamish – Lillooet, Okanagan – Similkameen, Okanagan Falls Provincial Park Central Okanagan - Bear Creek Provincial Park, Kelowna, North Okanagan, Penticton, Kamloops, Vernon, Oliver, Fairmont Hot Springs, Strathcona, Courtenay, Comox, Comox Valley, Colwood, Lantzville, Highlands, Allsbrook Trail – Parksville Alberni, Powell River, Sooke, Nanaimo, Cold Stream, Langford, Saanich Trail, Victoria – Rockford, University of Victoria.

IN FLIGHT ~ From May to July, and until August in mid-elevations.

HABITAT ~ Western Tiger Swallowtails are univoltine in BC. Common along the southern edge of BC. They are found wherever their larval food plants occur. Mostly near riparian habitats along streams and rivers. They are also seen in residential neighbourhoods especially where birches, willows and poplars are planted.

HOST PLANTS ~ Willows, poplars, aspen, cottonwood, bittercherry.

NECTAR PLANTS ~ Thistles, butterfly bush, sages, lavender, anise, catmint.



MOURNING CLOAK - NYMPHALIS ANTIOPA

LAST OBSERVED - 2019 between May to October.

Vancouver - Jericho Park, Richmond, District of North Vancouver - Butterflyway Lane, New Westminster, Port Coquitlam, Squamish, Squamish - Lillooet, Fraser Valley, Sunshine Coast, Sechelt, Victoria Cowichan Valley, Colwood, Central Okanagan - Blue Grouse Mountain Kamloops, Vernon, Kelowna, Okanagan - Similkameen, Columbia Lake - East Kootenay, Cariboo, Columbia - Shuswap, Logan Lake, Vanderhoof Thompson - Nicola, Cranbrook, Nelson, Kitimat, Stikine Regional District of Bulkley Nechako, Crauford Bay Regional Park, Wells Gray Park, Monck Provincial Park, Mt. Robson Park, Glacier National Park Nisga'

IN FLIGHT - Mid- March to September

HABITAT - Streamsides, meadows, forest borders, roadsides and gardens. Found all over BC in any elevations. Mourning Cloaks are univoltine in BC.

HOST PLANTS - Willow, ornamental elm, trembling aspen, hawthorn and black cottonwood.

NECTAR PLANTS - Adult butterfly feeds on tree sap, especially Oak and rotten fruit.



PALE SWALLOWTAIL ~ *PAPILIO EURYMEDON*

LAST OBSERVED ~ 2019 between May to late July: District of North Vancouver – Butterflyway Lane on Bournemouth Crescent, Greater Vancouver, Fraser Valley, Skagit Valley, Hope, Yale, Nelson, Manning Park Kelowna, Okanagan – Similkameen, Lantzville, Columbia – Shuswap, Central Kootenay, Kitimat - Stikine, Straight of Georgia, Squamish, Lost Lake Park Whistler, Pemberton, Mayne Island, Comox Valley, Cowichan Valley, Sechelt, Halfmoon Bay, Gibsons, Salt Spring Island, Sechelt, Victoria, Nanaimo, Colwood, Saanich, Powell River, Bowen Island.

IN FLIGHT ~ June and July in Southern British Columbia.

HABITAT ~ Pale Tiger Swallowtails are univoltine in British Columbia. They hibernate on Vancouver Island. Males are often seen mud-puddling. Pale Tiger Swallowtail are seen throughout southern BC in low and mid-elevation forest openings and riparian habitats.

HOST PLANTS ~ Bitter cherry, willow, poplar, red alder, ocean spray and ceanothus (California lilac).

NECTAR PLANTS ~ Bee balm, butterfly weed, parsley, thistle, joe pye weed, sedum, butterfly bushes and sunflower.



CLODIUS PARNASSIAN ~ PARNASSIUS CLODIUS

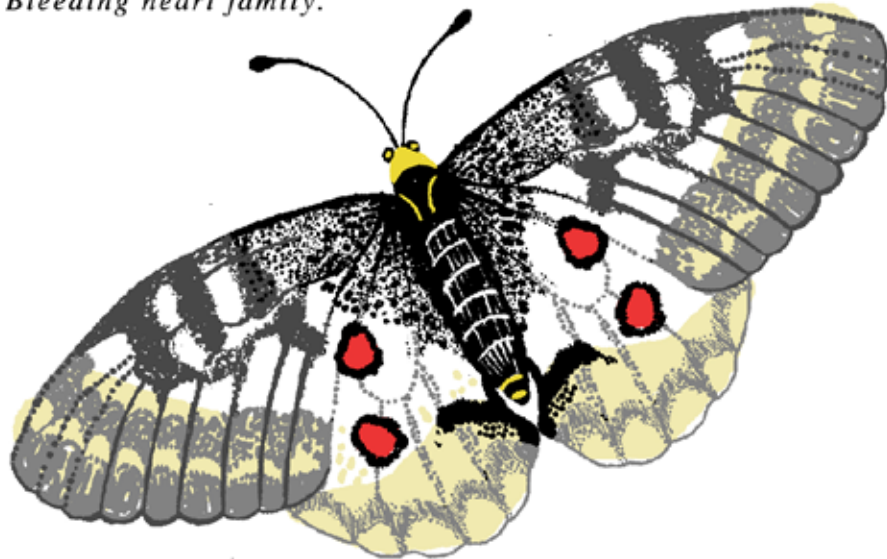
LAST OBSERVED ~ 2019 between June to August: Comox Valley, District of North Vancouver, Mount Washington Alpine Resort, Nanaimo, Rosedale, Yale, Squamish-Lillooet, Whitewater Ski Hill Rd, Fraser Valley, Maple Ridge, Abbotsford, Strathcona.

IN FLIGHT ~ Adults fly from late May at low elevations to early August at high elevations.

HABITAT ~ Forest edge, cool moist mountain and shaded canyons.

HOST PLANTS ~ Western bleeding heart, Pacific bleeding heart.

NECTAR PLANTS ~ Bleeding heart family.





LORQUIN'S ADMIRAL - *LIMENITIS LORQUINI*

LAST OBSERVED ~ 2019 between May to early September: Brentwood Bay in Delta, Rosedale in Chilliwack, Capilano River Regional Park in North Vancouver, Fraser Valley, Lodge Trail in Coquitlam, Manning Park, Nelson Canyon Park in West Vancouver, Roberts Creek in Sunshine Coast, Sunshine Coast Highway, Salt Spring Island, Squamish – Lillooet Regional District, Saanich Konukson Park in Victoria, Nanaimo Lake in Victoria, Swan Lake and Christmas Hill Nature Sanctuary, Victoria University of Victoria in Victoria, Columbia - Shuswap Central Coast, Central Kootenay, East Kootenay, West Kootenay, Okanagan, Similkameen, Glacier National Park in Columbia-Shuswap, Thompson – Nicola.

IN FLIGHT ~ May to September.

HABITAT ~ Mountain valleys, parks, deciduous woods, lakeshores, streamsides and suburban area.

HOST PLANTS ~ Willows, Hardhack, Chokeberries.

NECTAR PLANTS ~ Astor, yarrow, common milkweed.



MARIPOSA COPPER ~ *LYCAENA MARIPOSA*

LAST OBSERVED ~ 2019 June to September: District of North Vancouver - Mount Seymour Park, Squamish - Lillooet, Central Coast, Garibaldi, Comox Valley, Comox - Strathcona, Okanagan - Similkameen, North Okanagan, East Kootenay, Fraser - Fort George, Nelson - Grohman Creek, Kitimat - Stikine, Regional District of Bulkley Nechako.

IN FLIGHT ~ Mid-July to August.

HABITAT ~ Mainly a western mountain species, mariposa is widespread throughout British Columbia. It can be encountered at sea level on the coast.

HOST PLANTS ~ Dwarf bilberry and Douglas knotweed.

NECTAR PLANTS ~ Native wild flowers.





WEST COAST LADY ~ VANESSA ANNABELLA

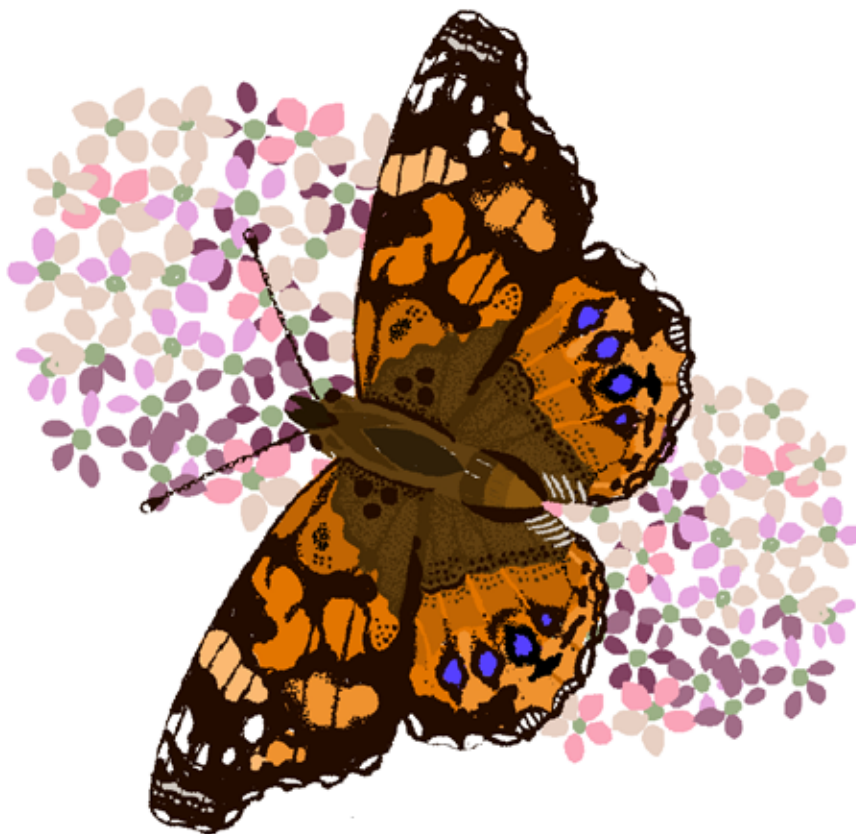
*LAST OBSERVED - 2019 between June - July
Nelson, Central Kootenay, District of North Vancouver - Butterflyway Lane
on Bournemouth Crescent*

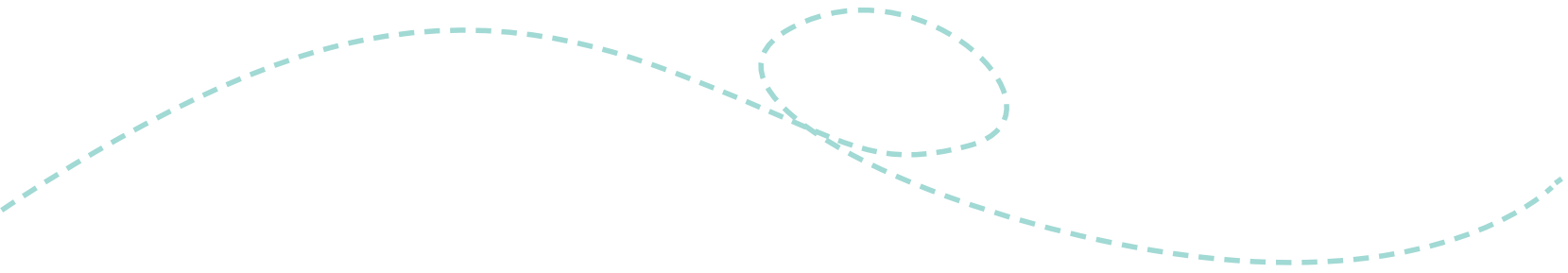
IN FLIGHT - May - September

*HABITAT - West Coast Lady shows up in fields, gardens, parks, meadows
and mountain valleys. The West Coast Lady is recognized by its orange bar
on the wing tip. It is a migratory coastal species. Adults hibernate in milder
areas.*

*HOST PLANTS - Stinging nettles, sidelaceas, globemellows, garden
hollyhock and mallows.*

NECTAR PLANTS - Sage, narrow leaf milkweed,





What to plant



Plant list design by Erika Rathje / erikarathje.ca

Information from Lady Bird Johnson Wildflower Centre (wildflower.org)
and West Coast Seeds.

With special support from the Butterflyway Indigenous Pollinator Plant
Committee.

Common Camas

Camassia quamash

Perennial herb





TOM BENSON VIA FLICKR

 30–91 cm (1–3 ft) tall

 **Blossoms:** Blue

 Blooms April–June

 **Native distribution:**
BC to CA, AB, MT, WY & UT

 **Native habitat:**
Moist areas, often where
dry by late spring


GROWING CONDITIONS

 High water use


 Sun


 Moist soil

Soil description: Heavy;
winter & spring: moist


 Camas eventually goes
dormant and should then
have less water, but not
fully dry soil. Considered
among the easiest and
showiest of native bulbs.


BENEFITS


 Elk, deer & moose
reportedly graze the
plant in early spring

 Bulb favoured by
Indigenous Peoples
for food

 Conspicuous flowers

 Attracts beneficial
insects

 Special value to
native bees

 Avoid white variety —
death camas (*Zigadenus
venenosus*)

Goldenrod

Solidago multiradiata

Rocky Mountain Goldenrod, Northern Goldenrod,
Alpine Goldenrod. Asteraceae (Aster Family)

Perennial herb



JANE S RICHARDSON VIA WIKIMEDIA

 Up to 30 cm (1 ft) tall

 **Blossoms:** Yellow

 Blooms July–Sept.

 **Native habitat:**
Rocky, lowland & subalpine
habitats

GROWING CONDITIONS

 Part shade


 Dry soil


Soil description:
Rocky, alkaline soils
(pH >7.2)

BENEFITS

 Attracts butterflies

 Attracts beneficial
insects

 Special value to native
bees & honeybees

 Larval Host: damoetas
checkerspot (*Chlosyne
damoetas*)

Pearly Everlasting

Anaphalis margaritacea


Perennial herb



 30–91 cm (1–3 ft) tall

 **Blossoms:**
White, yellow

 Blooms June–October

 **Native habitat:**
Dry prairies; open woods;
roadsides; waste places


GROWING CONDITIONS

 Medium water use


  Sun, part shade


 Dry soil


Soil description:
Sandy or gravelly soils


 **Propagation:** Increase
by division in the spring
or sow fresh seeds in
the fall.


BENEFITS

 The pure white flower is
commonly used in dried
flower arrangements

 In folk medicine,
it is used as a salve
for burns

 Attracts butterflies.
Good food plant for
painted lady butterflies.

 Larval host for
skippers, painted lady

 It is a great host plant
for the painted lady
butterflies. They can lay
their eggs anytime during
the summer but egg-laying
is most common in the
spring.


Pacific Bleeding Heart


Dicentra formosa

Perennial herb



STEPHANIE FALZONE VIA FLICKR

 18 cm (7") tall or more




 **Blossoms:**
Pink, purple

 Blooms March–July

 **Native habitat:**
Cool, damp woods


GROWING CONDITIONS

 Low water use

   Sun, part shade, shade

  Moist soil

Soil description: Well-drained, humus-rich soil

 This plant can be propagated by seed; however it takes several years for seedlings to grow. Seeds are spread by ants.

BENEFITS

 Attracts hummingbirds and butterflies

 Conspicuous flowers

Nodding Onion

Allium cernuum

Perennial herb




 Up to 46cm (18") tall

 **Blossoms:**
White, pink

 Blooms June–August

 **Native distribution:**
BC to NY


 **Native habitat:**
Dry to moist prairies;
stream banks; moist areas
at high altitudes


GROWING CONDITIONS

  Sun, part shade


 Moist soil



Soil description: Humus-rich, neutral to alkaline



 Most effectively planted in small groups. Some allium species can become weedy in warmer climates. Plants benefit from being divided every third year or when 8–10 bulbs appear in the clump.

 Easily propagated by seed or bulb division. Plant seeds outdoors in fall. Seeds germinate best if scarified. Offset bulblets, which form around the base of the larger bulbs, can be divided in fall.

BENEFITS

 Bulbs are utilized by bears and ground squirrels. Elk and deer graze the early spring herbage.

 Conspicuous flowers
 Attracts hummingbirds and hairstreak butterfly

 Attracts beneficial insects
 Special value to native bees

Coastal Kinnikinnick


Arctostaphylos uva-ursi

Perennial shrub



FRANK FUJIMOTO (CREATIVE COMMONS)

❄ Evergreen

 15–30 cm (6–12") tall,
spread up to 4.6 m (15 ft)

🌸 **Blossoms:**

White, pink

🌺 Blooms March–June

Flowers urn-shaped, waxy,
white-tinged with pink.

GROWING CONDITIONS

💧 Low water use

☀️ 🌑 ☀️ Sun, part shade,
shade

🌡️ Cold, drought and heat-
tolerant

💧 Dry or moist soil

Soil description: Rocky or
sandy, acidic soils

📌 Soil should not be
compacted around the
plants and they should not
be fertilized.

BENEFITS

🐦 The fruit is edible but
mealy and tasteless; it is
much favoured by birds
and other wildlife

🇨🇦 The Haida used it as
a diuretic for kidney
diseases and urinary tract
infections

🍴 The Okanagan-Colville
cooked the berries with
venison or salmon, or
dried them into cakes
eaten with salmon eggs.
Various Indigenous groups
in California prepared a
cider-like beverage from
the berries.

🐦 Attracts hummingbirds
and butterflies

🐛 Larval host for hoary elfin
(*Callophrys polia*), brown
elfin (*C. augustinus*), freija
fritillary (*Boloria freija*)

🐝 Special value to native
bees


Virginia Strawberry

Fragaria virginiana

Perennial herb




JOSHUA MAYER VIA FLICKR

 Up to about 20 cm (8") tall

 **Blossoms:** White

 Blooms March–May

 **Native habitat:**
Fields, prairies, woodland edges

GROWING CONDITIONS

  Sun, part shade


 Dry soil

Soil description:
Variable. Tolerant of moderately acid soil.


BENEFITS

 Edible fruit

 Attracts butterflies

 Special value to native bees

 Berries attract wildlife

 Larval host for gray hairstreak

 Conspicuous flowers


Western Yarrow

Achillea millefolium

Perennial herb





LAURA CAMP (CREATIVE COMMONS)

 Up to about 91 cm (3 ft) tall

 **Blossoms:**
White, pink, purple

 Blooms July–October

 **Native distribution:**
Most of temperate North America

 **Native habitat:**
Favours recently disturbed soil

GROWING CONDITIONS


 Medium water use

  Sun, part shade

 Drought-tolerant

 Dry soil

Soil description:
Loamy, well-drained soil
with a pH of 5.5–7.0

 Sow on the surface of the soil. Start indoors 8–10 weeks before transplanting outside (roughly mid-March on the coast). Transplant or direct sow in early spring or early autumn.

BENEFITS

 Attracts butterflies

 Special value to native bees

 Attracts beneficial insects


Douglas Aster

Aster subspicatus

Perennial herb




LINDA SEVERSON VIA FLICKR

 Up to about 1.2 m (4 ft) tall

 **Blossoms:**
Yellow, violet

 Blooms July–Sept.

 **Native distribution:**
BC, AB


 **Native habitat:**
Typically a coastal species found in moist lowland habitats such as seashores, salt and fresh marshes, ditches, meadows and clearings at low elevations.

GROWING CONDITIONS

  Sun, part shade

 Moist soil

Soil description:
Rich soil. Not drought-tolerant.

 Flowers create abundance of feathery seeds and will self seed freely once established.

BENEFITS

 Attracts butterflies

 Deer-resistant

Salal


Gaultheria shallon


Perennial shrub




MARSHALL DRUMMOND VIA FLICKR


 Evergreen


 30–91 cm (1–3 ft.) tall or more

 **Blossoms:**
White, pink

 Blooms April–July



 Purple, red, blue edible berries

 **Native distribution:**
Coastal areas from BC to California

 **Native habitat:**
Coastal woods or brushy places below 2,500 ft.


GROWING CONDITIONS

 High water use

   Sun, part shade, shade


 Dry or moist soil


Soil description: Peaty soil

 Must have summer fog or rain and shade. Direct summer sun causes scorch. This easy ground cover can become somewhat invasive.


 The tiny seeds germinate well. Best sown on milled sphagnum moss. Seedlings slow-growing. Propagation using cuttings of new wood taken in late summer is a faster method. Can also be propagated by layering.


BENEFITS

 The fruit is a source of food for many animals. Deer browse on new leaves and berries. Used as winter browse by deer as well.

 A staple food of NW coastal First Nations. Can be eaten fresh, cooked and dried. Berries make excellent jelly.

 Conspicuous flowers

 Attracts butterflies, hummingbirds

 Larval host for brown elfin butterfly


Hardhack

Spiraea douglasii

Perennial shrub




KATJA SCHULZ VIA FLICKR

 1.8–3.65 m (6–12 ft)
tall

 **Blossoms:** Pink

 Blooms June–Sept.


 Purple, red, blue edible
berries

GROWING CONDITIONS

 Low water use

 Part shade

 Moist soil

 Propagate by seed
or softwood cuttings.
Offshoots from the
creeping underground
stems can be readily
established.

BENEFITS

 Attracts butterflies

 Special value to native bees


Ocean Spray

Holodiscus discolor

Perennial shrub



JON D ANDERSON VIA FLICKR

 1.8–3.65 m (6–12 ft)
tall

 **Blossoms:** White

 Blooms May–August


GROWING CONDITIONS

 High water use


  Sun, part shade

 Dry or moist soil


Soil description: Gravelly
or rocky soils


 Semi-hardwood cuttings, suckers and seeds have been used with success. Seeds are produced in tiny, dry capsules. The tiny seeds require cold stratification at 5 C for up to 18 weeks.

BENEFITS

 Attracts butterflies (swallowtail, azure, and Lorquin's admiral butterflies)

 Conspicuous flowers

 Special value to native bees

 A colourful reclaimer of open or disturbed lands.

Planning your project

Steps to successful project planning

There are many planning tools out there and, who knows, perhaps you're a planning expert already! For those of you who could use a little help, we've provided a simple, step-by-step planning framework for you to follow. Use your Ranger Game Plan worksheet to record your plans.



Fundraising DIY

Incorporating fundraising into your team's project can be a great way to engage your community and raise awareness of the Butterflyway Project. Here are some simple ways your team can raise money to fund your team's project:

- Host a local fundraiser
- Find local sponsors
- Apply for a grant

The internet is an endless source of ideas for fundraising but the following ideas and tips will help get you started.

General tips

- Know your message: can you explain who you are, what you are all about and why someone should support you? Use your training in public narrative to perfect your pitch.
- Tap into your existing networks. Who do you already know in your community?
- If you do choose to plan an event, keep it simple — Pick a simple concept to limit resources and maximize the gathering of supporters. (See event section for more details.)
- Develop a fundraising plan to work out what activities you can run and how you will manage them.
- Be transparent about how funds will be used and how donors will benefit.
- Spend half of your planning time on recruiting people (potential donors) for your event. No matter how well-organized event your event is, it won't be successful if it's not well-attended.
- Plan your budget. How much will the event cost and how much do you expect to raise? Be conservative in your predictions if this is your first time running an event.
- Follow up with all donors and attendees after your event to thank them and give them an update on your project. Good relationships are key to successful fundraising
- Keep the fun in fundraising!

Take time to plan your fundraising event to ensure it is successful and meaningful to participants.

Host a local fundraiser

There are lots of simple and inexpensive ways to raise money for your community project. We've provided you with a sample list of events (see page 46) to help your team get started.

Here are a few strategies to consider to take your fundraiser to the next level:

- Get your local media involved.
- Talk to community leaders and get a formal endorsement.
- Use social media to help spread the word.
- Find a local celebrity to help raise the profile of your event.

Find a local sponsor

Local business owners can be a great source of support for community events. Consider asking a local grocer or restaurant to donate food, a business supply store to print posters or a retail store to donate prizes for a raffle.

Before you approach any business, do your research. Does it tend to fund particular issues? Is there a formal application process?

Write a formal letter asking for support that clearly explains who you are, what you hope to achieve and how a donation will support your cause. If at all possible, deliver your letter in person. It's much harder to say no to a person than an email!

Formal recognition is important, so consider how you can publicly thank all your project sponsors. For example, include the business logo on all promotional materials.

Apply for a grant

The David Suzuki Foundation does not give out grants. If you need financial support to cover project expenses, DSF will consider providing support with proper receipts and documentation. Connect with DSF staff to inquire about reimbursements in advance.

Community grants

A handful of agencies and funders in every community provides grants for grassroots environmental projects big and small. They all have different areas of interest, and funding cycles and levels. For a list of local grant programs, ask the DSF staff in your region.

Event planning tips and ideas

Why?

Why do you want to organize the event? How does your event support your project goals?

If your event is your project goal, you've already answered this question! If your event is part of a larger project, determine what you want to get from the event. Do you want to raise money, get people excited about local wildlife or educate the community on the importance of nature to human well-being?

Who?

Who is your target audience?

This is one of the most important questions! Review your project plan and reflect on the key characteristics of your target audience. Consider what will engage their interest, where to host your event and how best to reach them.

What?

What are you going to do at the event?

Event name: Create an interesting and informative name for your event.

Budget: You don't need a big budget to host a great event! Hikes and picnics are free! If you would like to rent a space or provide food, take some time to create a budget to track all your expenses.

Food: If you would like to serve food at your event, you might want to inquire about dietary restrictions and allergies. Vegetarian food tends to be a greener option. And remember, no bottled water!

Special guests: Don't forget to invite VIPs (community leaders, sponsors and partners). Because they tend to have busy schedules, get in touch with VIPs early.

Service providers: Would you like to have a speaker or photographer at your event? Book your services early and use your networks to find people who'd like to support your team pro bono.

Media: These are activities you do to catch your target audience and media's attention.

Simple event ideas

House party: Throw a party and pass the hat! Movie nights or music parties are great ways to bring like-minded people together. It's an opportunity to get people talking about your project and how they can get involved.

Block party: Ask not what your neighbourhood has done for you, but what you have done for your neighbourhood. We often overlook the fact that human beings do not live in economies. We live in families, neighbourhoods and communities. You don't have to live on a street of single-family homes either. People in apartments, townhouses and condos can play party host, too.

Potluck: Breaking bread together is a timeless community ritual. Sharing a meal builds a sense of community and is a great way to encourage meaningful conversation. Potlucks can be hosted at home, in the workplace or at school. Bring discussion topics for the table to get things started. Use your potluck to recruit volunteers or ask friends to donate \$20 to \$25. Either way, they'll get a fun, inexpensive night out.

Skill share: Everyone has a talent or skill they can share with others. Have friends or coworkers brainstorm a skill they can "donate" to the cause. Post descriptions of each skill in a public place (or online) and host a silent auction. Start the bidding at \$10 and set a time limit. It's a great way to raise money and learn about the hidden talents in your community or workplace.

Sales

Plant or seed: Sell packages of pollinator-friendly seeds or seedlings. They could be from your garden or donated by a nursery. Consider a plant or seed exchange where you ask for a donation to participate. (Think ahead for next year and grow plants now to sell next spring!)

Books: Ask folks to donate their books in support of your community project. Charge a standard amount for each book (\$2 or \$5). It's a simple but effective way of generating money fast.

Rummage: We can all do with some decluttering in our lives. Find a good indoor location for the sale and ask your community to donate items as part of a collective spring (or fall) cleaning effort.

Bake: A standard and delicious fundraiser! Add a bake sale to other events or happenings around your community without having to organize a whole event.

Personal challenge: Thinking of running a marathon or giving up your chocolate addiction? Participants can choose their own challenge and put aside money for each kilometre they run or each day they go without a chocolate fix. Friends, family and coworkers can be asked to match funds.

David Suzuki Foundation contacts

The David Suzuki Foundation team is here to support your efforts to bring nature home to your neighbourhood. Get in touch with new ideas or if you're feeling stuck. The Butterflyway Project is truly a team effort and everyone's contributions and ideas are essential.

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Butterflyway communication channels

The Butterflyway Project will have content available through a few different social media networks. Below are the key sites related to the project:

WEB: The project's webpages can be found at **davidsuzuki.org/butterflyway**. Other content like blogs will also appear on the David Suzuki Foundation's website at **davidsuzuki.org**.

FACEBOOK: The David Suzuki Foundation Facebook page can be found at **facebook.com/davidsuzuki**. If you are on Facebook, follow the page and share stories, comments, events and other interesting fodder.

TWITTER: DSF's Twitter handle is **@DavidSuzukiFDN**. Our main hashtag for the project is **#butterflyway**.

INSTAGRAM: The DSF Instagram account is **@davidsuzukiFDN**. Our main hashtag for the project is **#butterflyway**.

EMAIL: All project-related queries should be directed to one of the local DSF staff listed above, or to **contact@davidsuzuki.org**



The Butterflyway Project

