# Pacific Northwest



Trees, animals, birds, plants, forests, mountains, lakes and rivers — everything that exists in Nature are in desperate need of our kindness, of the compassionate care and protection of human beings. If we protect them, they in turn will protect us. - Amma

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GreenFriends is a global grassroots environmental movement which promotes environmental awareness and local participation in conservation efforts throughout the world.

GreenFriends is one of the projects of Embracing the World, a not-for-profit international collective of charities founded by internationally known spiritual and humanitarian leader, Mata Amritanandamayi (Amma)

To join the Pacific Northwest GreenFriends Litter Project, write Karuna at karunan108@comcast net

### **NEWS**

# AYUDH (Youth) Plastic Awareness Presentation and Upcycling project competition, December 5, 2020

Plastic Awareness at a young age helps kids grow to be more responsible and conscious of their impact on the environment.

Join us for this fun, educational and interactive PowerPoint Presentation (15 minutes) on Zoom, hosted by the AYUDH Seattle Chapter. This presentation and activity is geared toward elementary and middle school aged youth, however everyone is welcome to attend. Kids are encouraged to participate no matter where they live. The event is free.

**Win prizes!** Stay online after the presentation to hear about a fun opportunity to create upcycling projects from your own home.

**Date:** Saturday, December 5 **Time:** 11:30am-11:50am

Please register to attend by emailing: vaid sonali@outlook.com

Parents-please include the attendees name and age. Once you have registered, a Zoom link will be emailed to you. Feel free to send questions or comments to Sonali.

**Deadline:** Send a photo of your project by December 19, 2020 to be entered into the competition and have a chance to win a prize.

AYUDH Seattle aims to contribute to the Seattle community based upon the 17 Sustainable Development Goals set by the United Nations Sustainable Development Agenda for 2030.

To learn more about AYUDH click here.

### **Nature**

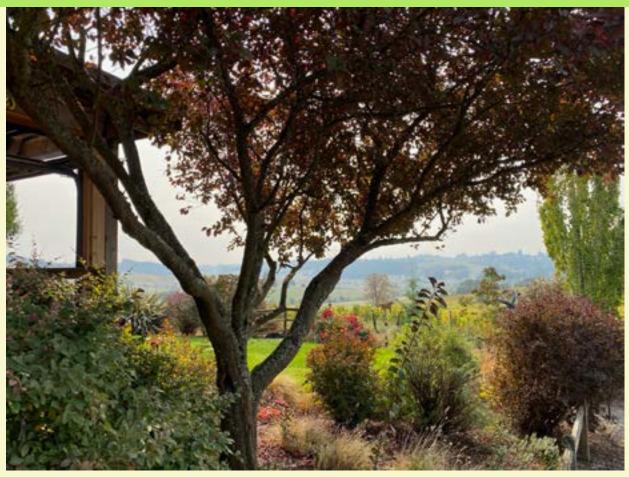
## A Visit to Williamette Valley by Prarthana (Bainbridge Island)

The Willamette Valley in Oregon is 150 miles long and 60 miles wide. It goes from the Columbia River in Portland, through Salem to the Calapooya Mountains near Eugene. The valley is bordered by mountain ranges on 3 sides and has the benefit of a marine climate to grow cool-weather grapes. There are over 1000 vineyards as well as farms and orchards located in the valley. The vineyards hug the hills while the farms and orchards prefer the lowlands.



















# **Nature**Nature Photos

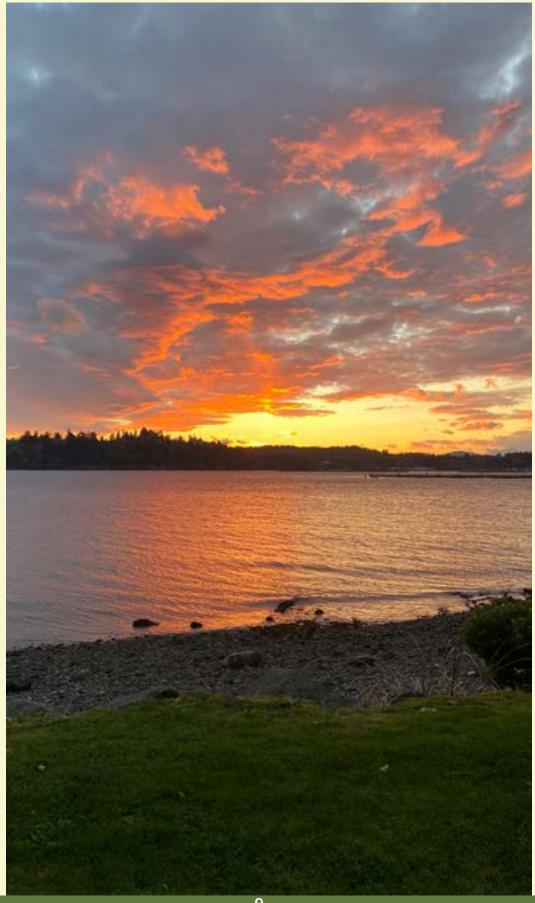
### From Karuna in Seattle:





# **Nature**

## From Prarthana on Bainbridge Island:



# **Nature**

### From Vince in Tacoma:





## **Nature**

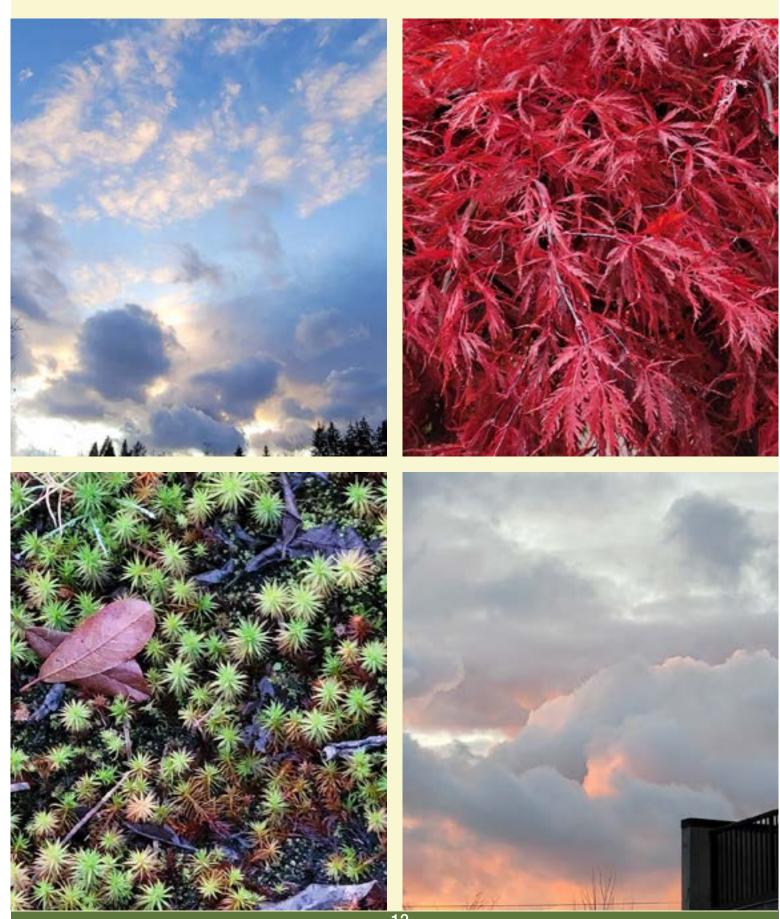
### From Sarah in Eugene:

I took this photo while running at the Mt. Pisgah Arboretum just a short drive from Eugene. This is a field of teasel... some people cut teasel and use the stalks to house mason bees... the stem is hollow.



# **Nature**

### From Kaarisa in Seattle:



# **Nature**

### From Rara in California:



### **Nature**

# Highly Recommended: "Our Planet" Nature Documentary Series by Amala (Toronto)



Photo Source: Pexels

The documentary series "Our Planet" will make you fall in love with nature all over again. It gives us a vast and sweeping look at our planet, its many extreme habitats, and the amazing wildlife that inhabit them. Renowned naturalist David Attenborough narrates the eight episodes in the series. The combination of David's old-school story telling with the modern methods of capturing footage presents a very nuanced and profound look at the relationships between the earth and its inhabitants.

All the most modern technology was used during filming: 4K drones, gyro-stabilitzed cameras on vehicles like jeeps and snow vehicles, remote-controlled cameras, and a cutting edge deep-sea diving apparatus. The team of 600 people who worked on the project for four years were able to film animals in ways that we have not seen before. Woven into these images and stories is the description of how humans are impacting them at an almost catastrophic rate. The episodes are both staggeringly beautiful and deeply sobering, and are filled with humor and drama.

There are examples of areas in which the natural world and species have bounced back from near destruction. One of the sequences in the "Forests" episode shows us the amazing regeneration of flora and fauna in the Chernobyl exclusion zone, which was declared uninhabitable for the next 20,000 years due to the radioactivity from the nuclear reactor disaster. It is wonderful to watch bears, hares, wolves, moose and all kinds of other animals living in the exclusion zone. The episode doesn't tell us all of the bad news: the level of genetic mutations in the animals in the exclusion zone is 20 times higher due to the radioactivity.

The series was produced by and released on Netflix, but they are also available on YouTube where you can enjoy them for free. You can find the titles and links to all eight episodes on YouTube below.

#### 1 "One Planet" <a href="https://www.youtube.com/watch?v=GfO-3Oir-qM">https://www.youtube.com/watch?v=GfO-3Oir-qM</a>

This first episode gives an introduction and overview of the series, and draws on clips from the other episodes.

### **Nature**

#### 2 "Frozen Worlds" https://www.youtube.com/watch?v=cTQ3Ko9ZKg8

The second episode looks at the surprisingly busy polar regions of Earth, and the impacts of climate change on the wildlife.

#### 3 "Jungles" <a href="https://www.youtube.com/watch?v=um2Q9aUecy0">https://www.youtube.com/watch?v=um2Q9aUecy0</a>

Jungles and rainforests are home to an incredible variety of species like preening birds, intelligent orangutans, and remarkably ambitious ants.

#### 4 "Coastal Seas" <a href="https://www.youtube.com/watch?v=r9PeYPHdpNo">https://www.youtube.com/watch?v=r9PeYPHdpNo</a>

From fearsome sharks to lowly urchins, 90 percent of marine creatures live in coastal waters. Protecting these habitats is a battle humanity must win.

#### 5 "From Deserts to Grasslands" <a href="https://www.youtube.com/watch?v=XmtXC">https://www.youtube.com/watch?v=XmtXC</a> n6X6Q

Cameras follow desert elephants seeking sustenance, bison roaming North American grasslands and caterpillars living the good life underground.

#### 6 "The High Seas" https://www.youtube.com/watch?v=9FqwhW0B3tY

Venture into the deep, dark and desolate oceans that are home to an abundance of beautiful - and downright strange - creatures.

#### 7 "Fresh Water" <a href="https://www.youtube.com/watch?v=R2DU85qLfJQ">https://www.youtube.com/watch?v=R2DU85qLfJQ</a>

The need for fresh water is as strong as ever. However, the supply is becoming increasingly unpredictable for all manner of species.

#### 8 "Forests" <a href="https://www.youtube.com/watch?v=JkaxUblCGz0">https://www.youtube.com/watch?v=JkaxUblCGz0</a>

Examine the fragile interdependence that exists between forests' wide variety of residents, including bald eagles, hunting dogs and Siberian tigers.



# **Nature**Flamingos by Cindy (California)

These photos were taken during a previous trip to Argentina.



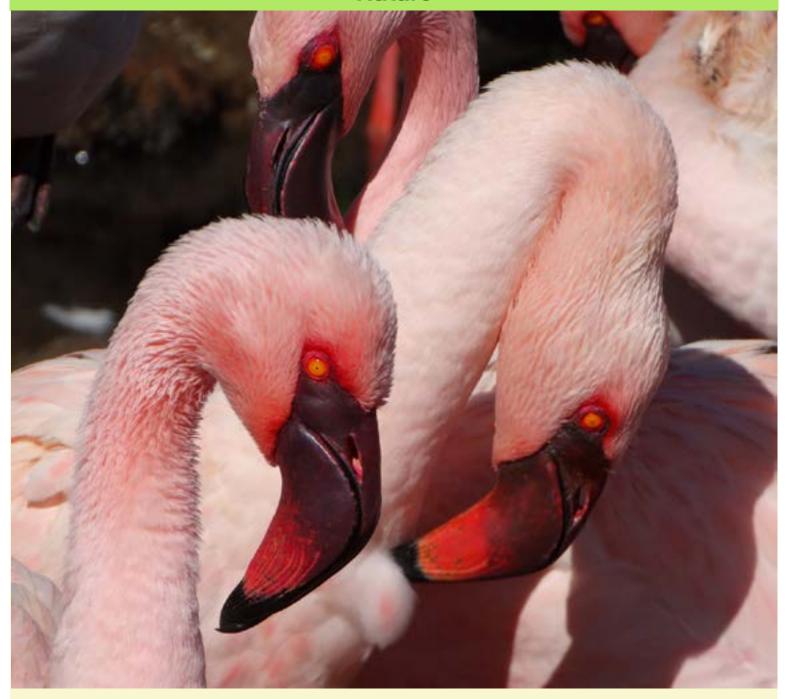












<u>Flamingos</u>

# **Tree Planting and Habitat Restoration**

Why Plant Trees? by Tirtha G. (Vancouver Island)



This beautiful madrona tree in Victoria (known as an arbutus in Canada) was cut down due to disease.

Many people think there's no urgent need to plant trees, because we already have so many in the Pacific Northwest.

However, every city is losing mature trees on a fairly constant basis. They are cut down to widen roads, to make way for big housing developments, to put in bicycle lanes. They are cut down because home owners don't want to deal with the fallen leaves, or the sticky sap, or the acorns/nuts/fruit, etc.

About 300 trees in a park were cut down in Victoria to make room for a highway interchange. City councillors in Surrey voted to put a road right through one of their parks. And they did, despite strong opposition from neighbors.

Trees are cut down because new property owners don't like trees. Or a big tree makes them feel unsafe. Or they want to get more light. Or to plant a garden, or build a shed. Or because the tree gets sick and dies.

Our summer weather is often hotter and drier now than it used to be. Many people no longer water their lawns, and tree roots (which can grow much wider than the tree is tall) grew under lawns to get the water in the past. Drought conditions, like the PNW has had most summers for about 12 years now, also make it easier for trees to succumb to pests or disease. Many trees die every year.

It is said that a city needs a "tree canopy" of 30 to 40 percent for the best possible health outcomes for its residents. That refers to the percentage of a city that's covered by trees, as seen from the air. Vancouver's tree canopy is about 18 to 19 percent. (And if you don't count Stanley Park, apparently that goes down to about 16%.) Seattle (the Emerald City) is said to be 28 percent. Accurate readings are difficult to get, however.

Vancouver had a goal of becoming the greenest city in the world. They planned to plant 150,000 trees over 10 years, by the end of 2020, in order to increase their canopy to 22 per cent. They did plant the trees. But lots of mature trees were cut down, so they were only able to stay at 18 percent.

Tampa, Florida, is considered the greenest city in the world with a canopy of 36.1%.

## **Tree Planting and Habitat Restoration**

Trees make our cities healthier in many ways. Studies have found that trees reduce people's stress levels. Trees have a calming effect, and reduce mental fatigue.

Patients with a view of trees tend to recover more quickly than those without. There is less childhood asthma in treed areas. Trees filter the air, reducing the amount of fine particles that affect lung health. Trees reduce noise by up to 50%. Even a single tree can substantially reduce wind.

As temperatures get hotter, the cooling effect of trees becomes even more important. Trees reduce heat through transpiration as well as by casting shade. Treed areas can reduce temperatures by as much as 8 to 10 degrees Celsius.

Trees save cities money. The pavement and sidewalks on shaded streets last longer. Trees reduce flooding. Tree roots lead more water down into the soil, and keep more of it there, so drainage systems are not overwhelmed by heavy rains and floods.

Trees increase the value of real estate, and they hold onto topsoil to prevent it being washed or blown away. They help retain moisture in the earth.

Trees can save energy. Planted to the north of a building, they can reduce winter heating costs by as much as 30 percent. Deciduous trees, planted to the south and west of a building, can keep buildings cooler and more comfortable in summer.

Hopefully everyone knows that trees are one of the best ways to sequester carbon dioxide, one of the main causes of global warming. So planting trees is a great thing to do. And now is a good time to plant in the Pacific Northwest. Trees planted now will be able to grow roots over the winter, so they are better prepared to handle the drier summer weather.

Trying to protect the mature trees we still have is also very important. The US Forest Service found that a tree with a 30-inch diameter delivers 70 times the environmental benefits of a tree with a



David and Chris plant a Garry oak tree in Victoria.

3-inch diameter! And many saplings aren't even 3 inches in diameter. It takes decades for trees to grow.

Let people know that mature trees are worth keeping. They help us all, in so many ways.

# **Tree Planting and Habitat Restoration**

#### References:

Old trees sequester more carbon:

https://www.theguardian.com/environment/2014/jan/15/trees-grow-more-older-carbon

The cooling effect of trees:

https://theconversation.com/can-trees-really-cool-our-cities-down-44099

https://www.nanowerk.com/news2/green/newsid=44544.php

Trees reduce noise:

https://homeguides.sfgate.com/evergreen-trees-effective-reducing-traffic-noise-96668.html

Trees save energy:

https://www.houselogic.com/by-room/yard-patio/plant-trees-save-energy-grow-value/

The US loses 36 million trees a year:

https://www.greengeeks.com/blog/the-us-loses-36-million-trees-every-year/

Canopy size and health of residents:

https://psmag.com/news/more-trees-leads-to-better-health-outcomes-according-to-new-research

10 greenest cities:

https://ecobnb.com/blog/2018/10/10-greenest-cities/

(Vancouver itself says it has a canopy of 18 percent, although this article attributes it a much higher percent.)

# **Tree Planting and Habitat Restoration**

The Songs of Trees by David George Haskell Permaculture Book Review by Josh (Indiana)



Photo title: New Life Among the Old

Moss has taken flight, lifting itself on wings so thin that light barely notices as it passes through. The sun leaves not a color but a suggestion...Here the air is water. Mosses grow like filamentous seaweeds in an open ocean.

The forest presses its mouth to every creature and exhales. We draw the breath: hot; odorous; almost mammalian, seeming to flow directly from the forest's blood to our lungs. Animate, inanimate, suffocating. At noon the mosses are in flight, but we humans are supine, curled in the fecund belly of life's modern zenith. (p.3)

Thus begins the exquisite poetry of The Songs of Trees, by David George Haskell, who is not only a poet, but also a scientist -- a scientist-poet, who, in this work, helps to show us a way forward and build a bridge between two aspects of our nature that have long been assumed to be in opposition.

I came upon this book by chance while looking through the nature section of my public library. I was curious to read about trees, and this book seemed to fit. By the time I actually got around to it a few months later, I was less interested in trees, but decided to give the book a try. I'm so glad I did, because this book is about so much more than trees.

The premise of this book is simple: the author, who is a biology professor at the University of the South in Sewanee, Tennessee, devotes each chapter to one tree, which provides the title of that chapter. But in most of the cases, it is not just a certain species of tree, but actually refers to one particular tree that the author visited on multiple occa-

## **Tree Planting and Habitat Restoration**

sions over the course of at least two years, and sometimes longer.

Most of the trees with which he cultivates relationships are in the United States - in Georgia, Tennessee, Colorado, and Manhattan, but he also finds friends in Ontario, Scotland, Japan, and Ecuador, specifically in the Yasuni Biosphere Reserve in western Ecuador, which is the place that inspired the opening quotation.

But while each chapter concerns his relationship with one individual or type of tree, that relationship is also a starting point to examine many other things -- even everything, really. Everything comes under his observation, because of course everything is a "link on a chain", and the author uses trees as a doorway to this beautiful chain.

He usually looks at and around the tree first, describing the surrounding ecosystem and the ecology of which the tree is a part, as well as how that ecology influences the tree and how the tree influences the ecology. But then throughout each chapter he broadens his gaze, considering, for example, the origin of life, the history of climate change on earth (e.g., how the earth became oxygenated, ice ages, adaptation, environmental legacy, etc.), various ecological forces such as fire, volcanism, and evolution -- both gradual evolution over long periods, and what happens when sudden catastrophic change occurs.

Haskell then takes an even broader view, and considers humans. Actually, a large part of this book is about humans. He makes a point which many of us are familiar with: that to speak of "humans" on one hand, and "nature" on the other is a false dichotomy, and enables us to think that we are separate, and to act as if we are separate. One of the things I loved most about this book was that I feel he doesn't just say this, but the book is itself an example of how to live and to experience the world in this way.

Haskell uses trees as a starting point to think about human origins, and the origin of civilizations -- he meditates on our dependence on trees, and how we rarely acknowledge this in our actions and decisions. He writes two lovely interludes, one about the art of paper-making in Japan, and one where he visits a luthier (a violin-maker) in Chicago, and learns how to "hear with his fingers".

He cultivates a relationship with a cottonwood tree in Denver, and this leads him to examine concepts of racial justice, equality, the racist history of the United States, and how even the National Park system was predicated on ideas of the "supremacy of whiteness and masculinity" (p.174). How John Muir and Gifford Pinchot, "founder of the national forests" (p.174), not only expressed racists ideas, but also how these ideas and their ideas about nature were intertwined, and continue to influence conversations about nature, conservation, and the environmental movement today. He takes this further and acknowledges and examines his own whiteness and privilege.

In one of my favorite chapters, Haskell cultivates a relationship with an olive tree near the Damascus Gate, in Jerusalem. He gives a beautiful overview of the history of the olive tree and its relationship to humans. It is beautiful scientifically, because Haskell describes how science knows what it knows -- he provides an overview of the evidence and

## **Tree Planting and Habitat Restoration**

the story of how the evidence came to be known and how the story was extracted from it, describing how humans and olives came to depend upon each other -- so much so that olives can't really survive without humans, and humans in that part of the world can't really survive without olives.

He then engages in a meditation on the current state of that relationship. Considering how for most of human history there has been a deep connection between humans and olives in that land, he sees that most of the labour of olive farming in modern Israel is done by Thai guest workers, and asks how this fact will affect the relationship of humans and olives in the future, when many inhabitants of the land themselves don't have a relationship to olives, and the humans with which the olives have a relationship don't actually inhabit the land.

He then travels to Jenin, under military occupation, and visits Palestinian farmers who still cultivate personal relationships with the olives themselves. He participates in a community olive harvest, observing and participating in the human- and nature- connection of this shared work. He says:

During the harvest, every tree became a center of human story-telling, stories that comprise people, trees, land, and the relationships among them. By the time workers have picked a field, tens of thousands of words have flown from mouth to ear. Part of the landscape's mind -- its memories, connections, rhythms -- is thereby held in human consciousness. Work among the olive trees does more than yield oil; it creates and deepens the stories from which are made human and ecological communities. (p.230).

Perhaps one of the things I loved most about this book is this: Haskell is a scientist -- he speaks scientifically, has a scientific perspective in all that he observes; and, he is also a poet -- he speaks as a poet, and observes everything also as a poet. This combination I found to be incredibly beautiful; it provides us a needed example.

Sometimes I feel as though science and nature are seen as somehow to be in opposition. Of course, science was originally referred to as "natural science", and had as its goal learning about nature. But, the original European founders of science spoke of "conquering or subduing nature" -- an idea we still hear today. They also tended to view the world, and thus nature, as being given to humans by God for the express purpose of humans doing whatever they wanted with it. In this view, exploiting nature is not only permissible, but in fact required.

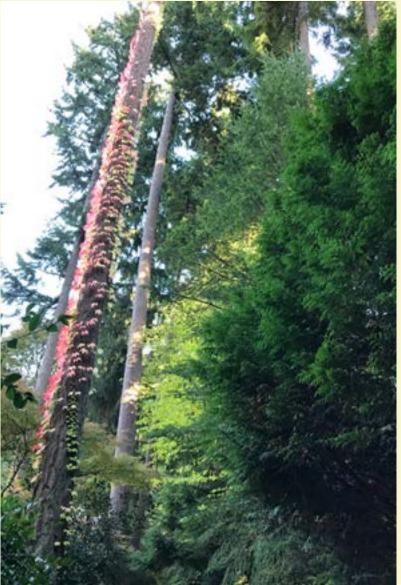
Of course, science itself is not bad, it all depends on how we understand it and especially how we use it. Haskell gives such an excellent example of how to do this in this book. For him, nature is not something to be exploited and used for human gain: nature is human, human is nature. Exploitation of nature is exploitation of humans; the destruction of nature is the destruction of humans. Haskell's perspective is always one of unity, of beauty, of community -- his scientific perspective is in service to this, not its master. If science is the master, as it has been now for hundreds of years, we will only find destruction, because that is what science does without a guiding principle that is larger than itself. The Songs of Trees shows us how to live in love, in community, in compassion with all of this world, and how to place science in a role that truly serves this living poetry of beauty and of love.

# **Tree Planting and Habitat Restoration**

The Ivy & The Trees by Lin (Bellevue)



What could be more inviting than a sunny fall afternoon and a walk around the block, with a return through the park across the street? I walked with my head tilted back to admire the sky and the treetops—which is how I became aware of ivy growing 15, 20 and 30 feet up some of the fir trees. It not only strangles the trees, it also weakens them and makes them more vulnerable to pests and diseases.







## **Tree Planting and Habitat Restoration**

Much of my area in old Bellevue doesn't have sidewalks, only paths beside the streets that are lined with firs and maples in the city's right-of-way easement that runs beside the streets' pavement. By the looks of it, the city doesn't have the budget, time, or manpower to maintain the right-of-ways, and tall fences giving property owners privacy from the street mean that they don't look after the trees either. Signs around the neighborhood proclaimed "Save Bellevue's Trees. If I didn't tackle the ivy, who would?

On my next several walks I brought along my gardening gloves and a pair of hand clippers and pulled as much ivy off tree trunks as I could, being careful not to harm the bark or make a mess that would obstruct pedestrians. I've heard that the proper method is to pull up the ivy's roots near the tree's trunk and to remove vines no higher than chest or shoulder level. That protects the cutter from accidentally pulling down something heavy that could cause injury.

Some trees had been treated this way in years past, as evidenced by dry vines and leaves clinging to the tree bark—sometimes further up the tree



than I could see. A few of those vines were thicker than my wrist! And, even more surprisingly, certain clumps of ivy above those thick cuts were still growing abundantly even though the vine's connection



to the ground had been severed. Judging by the many fine roots radiating laterally from the vines, they must have penetrated the tree bark and become parasitic, drawing their moisture from the tree itself since physical attachment to the ground no longer exists.

I thought the dead vines and brown foliage clinging to the trees was unsightly, which is why when I tackled the new growth I tried to pull down as much as I could.



### **Tree Planting and Habitat Restoration**

As I worked, a few joggers and dog walkers passed by, calling out to thank me for saving the trees. I waved back and smiled.

One couple said, "Gee, I thought we were the only ones who pulled ivy down. Glad to see someone else doing it too."



If you feel similarly inspired in your own neighborhood, be sure to call your city to confirm that the public is welcome to participate in this kind of maintenance. City codes differ. It happens that Bellevue publicizes its approval. I even called the Public Works Department to make sure.



City parks are a different matter. Unsupervised volunteer activity like ivy removal in the parks is prohibited because they protect their liability by having official volunteer programs that offer training and supervision. Those programs have been shut down for now because of the Covid quarantine. But I put myself on a volunteer list to join "the Master Naturalist Program" once they re-open. Their "adopt a park" policy sounds as though it could be an interesting way to contribute to my neighborhood. You might like to look into it in yours.

# **PNW Litter Project**

### **Litter Stats**

In November 2020, 22 Litter Project members and their families and friends picked up litter for 70 hours. (Average 3.18 hours; Median 1 hour; Range 1 minute to 12 hours). We have picked up litter for 11,727 hours since the project began in July of 2011.



### TerraCycle Stats

We have sent TerraCycle 356,874 cigarette butts since 2013. [TerraCycle is an organization that recycles items which are normally considered unrecyclable.]

### **Interesting Information from Our Readers**

#### From Donna in Kirkland:

Scoop Marketplace - Seattle's Zero Waste Store
Kirkland Recycling Events
Plastic Film Recycling

#### From Karuna in Seattle:

Imperfect Foods: Our mission- Eliminate food waste and build a better food system for everyone Ridwell: We make it easy to sustainably reuse and recycle your stuff.