Maple Tree Map and Brochure

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GEOB 472

December 13, 2016

Maple Tree Map and Brochure Write-Up

GEOB 472 ADVANCED CARTOGRAPHY

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Community Partner: UBC Botanical Garden

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Tuesday December 13, 2016

Introduction

I began my project with a kick-off meeting which included meeting my community partner, Tara Moreau from the UBC Botanical Garden, as well as Sally, and David Gill from SEEDS. After a brief introduction, we discussed different projects available for me to approach, and decided on the deliverables which was to create a 4-fold brochure for a self-guided tour showcasing several unique maple trees of the UBC botanical garden celebrating Canada's 150th birthday next year! The intended audience are the tourists and visitors of the garden. We scheduled the next meeting for me to meet Tara, and Douglas Justice, the maple tree expert of the garden.

The next meeting (#2) with Tara and Douglas, consisted of discussing the following steps necessary in order to create the self-guided maple tour. We discussed in what ways we could group and/or categorize the map, also glancing at a previous pre-historic map tour that had been created. We agreed that the most effective way to create the map was to take a walk through of the garden ourselves, as if we were doing the maple tour, in order for us to locate the maple trees along the pathway from several viewpoints. Also, we decided it would be effective to create two

self-guided walking tours – one being a shorter tour that was wheelchair accessible, and a second tour which extended from the first tour and is open for any visitor that wants a longer tour with more maple trees.

This is the process that I will outline next and I will come back to this figure at the end as well.

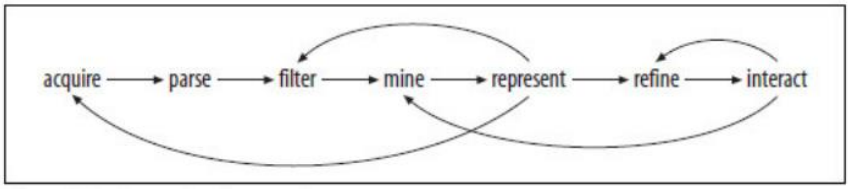

Figure 1. Interactions between the seven stages (Data Visualization, Ben Fry, page 15)

1. Acquire

Acquiring data was essentially the first step in creating the map, which is to obtain data. When doing so it is important to evaluate whether the data can be trusted, and what types of bias may be a factor in obtaining this data.

I acquired the files from Tara for the Adobe Illustrator (AI) base map of the botanical garden that was already created. I familiarized myself with the AI files – also researching and reading about the significance of maple trees. I took notes from the article "What is a native Canadian maple?"[1], "What is a native species?"[2], and "Description of maple tree genus"[3] to

[1] What is a Native Canadian Maple? (2016). Retrieved November 8, 2016, from http://www.mapleleavesforever.com/what-is-a-native-canadian-maple/
[2] Ibid.
[3] Ibid.

familiarize myself with defining the key characteristics of the maple leaf and maple tree.

In our garden walk through the following week with Tara and Douglas (meeting #3), I gathered the maple tree data by locating maples by noting the maples that could be observed from the path and plotting them onto the map I was holding. I plotted the maples as stop numbers, whilst on a separate piece of paper, recording the stop number, species name, species origin, and any other significant information that Douglas noted. I drew lines on the pathway we took – indicating the accessibility pathways and maples observed from this path. An important aspect to include here is that the maple trees chosen are biased to ones that myself, Tara, and Douglas chose as unique to include in the tour. Also, the trees chosen are biased to the wheelchair accessible area as well as the upper North Garden for the extended tour. There are several maples in other parts of the garden but for the time available for the project we focused on these two areas. I also acquired and then uploaded photos of each tree to reference later. Furthermore, I acquired data from the "Acer List" which is an excel file of all the maple (acer) trees in the UBC Botanical garden. In our last meeting #4, I recorded significant and unique facts of the maple trees chosen that Douglas was able to provide for me to include in the *Notes* blurb for each tree.

I acquired more data from several websites which included the UBC Botanical Garden[4], the IUCN Red List webpage[5] for information on conservation status of the maple trees of the garden.

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[4] Maples. (2016). Retrieved November 30, 2016, from http://botanicalgarden.ubc.ca/research-collections/plant-collections/maples/

[5] IUCN Red List of Threatened Species. (2016). Retrieved November 30, 2016, from https://www.iucn.org/resources/conservation-tools/iucn-red-list-threatened-species

2. Parse

The next step was then to parse through my data, for the purpose of providing structure and order to the data. At this point, the data was scribbled and plotted on sheets of paper so in this step I translated this into an electronic format. I typed up a list of the maples into a table with columns that later consisted of *Stop #*, *Taxon Name*, *Common Name*, *Region of Origin*, *Notes*, and *Conservation Status as shown below*. Parts of these columns were left blank at this point and filled in explained in the filter section later on.

Stop #		Taxon Name	Common Name	Region	Notes (Sentence for brochure bolded)	Conservation Status
1	a	Acer campbellii subsp. flabellatum	Fan leaf maple	Himalayan	**"Flabellatum" means to have fan like leaves, and this maple has large rounded clusters of flowers.**	LC
	b	Acer pictum subsp. okamotoanum		Korean	**This maple is unique – existing only on one Korean island and has broad leaves with numerous pointed lobes.**	LC
	c	Acer palmatum	smooth or common Japanese maple	**Japan**	(Featured on Tree App) Characteristics: oppositely arranged palmately lobed leaves, mostly with 5-7 pointed, toothed lobes Yellow, Orange or red in the fall Susceptible to verticillium wilt when stressed **This Japanese maple wilts when stressed, but stands up to display beautiful yellow, orange, or red colours in the fall.**	LC

Table 1. Maple Tree data gathered and represented in a table.

I parsed through the information on the websites from the UBC botanical to gather the key points for the Maples and Conservation sections of the brochure. Also parsing through the information on the IUCN Red List webpage to get the Red List categorization terminology for example *endangered*, *critically endangered*, or *threatened* in order to represent this later visually with a scale.

3. Mine

Mining is mainly done through applying statistics, classification, GIS analysis – to discern patterns. For my maple tree data, the extent of mining that took place was to look at the "Acer List" excel file of all the maple trees and spell-checking all the taxon names for my maple tree data table.

	A	B	C	D
1	TaxonName	TaxonNameFull	Species	InfraName1
2	Acer × conspicuum 'Silver Vein'	Acer × conspicuum van Gelderen & Oterdoom 'Silver Vein'	× conspicuum	
3	Acer acuminatum	Acer acuminatum Wall. ex D.Don	acuminatum	
4	Acer acuminatum	Acer acuminatum Wall. ex D.Don	acuminatum	
5	Acer acuminatum	Acer acuminatum Wall. ex D.Don	acuminatum	
6	Acer buergerianum subsp. buergerianum	Acer buergerianum Miq. subsp. buergerianum	buergerianum	buergerianum
7	Acer caesium	Acer caesium Wall. ex Brand.	caesium	
8	Acer caesium subsp. giraldii	Acer caesium Wall. ex Brand. subsp. giraldii (Pax) A.E.Murray	caesium	giraldii
9	Acer caesium subsp. giraldii	Acer caesium Wall. ex Brand. subsp. giraldii (Pax) A.E.Murray	caesium	giraldii
10	Acer campbellii	Acer campbellii Hook.f. & Thomson ex Hiern	campbellii	
11	Acer campbellii	Acer campbellii Hook.f. & Thomson ex Hiern	campbellii	
12	Acer campbellii	Acer campbellii Hook.f. & Thomson ex Hiern	campbellii	
13	Acer campbellii subsp. flabellatum	Acer campbellii Hook.f. & Thomson ex Hiern subsp. flabellatum (Rehder) A.E.Murray	campbellii	flabellatum
14	Acer campbellii subsp. flabellatum	Acer campbellii Hook.f. & Thomson ex Hiern subsp. flabellatum (Rehder) A.E.Murray	campbellii	flabellatum
15	Acer campbellii subsp. flabellatum	Acer campbellii Hook.f. & Thomson ex Hiern subsp. flabellatum (Rehder) A.E.Murray	campbellii	flabellatum
16	Acer campbellii subsp. flabellatum	Acer campbellii Hook.f. & Thomson ex Hiern subsp. flabellatum (Rehder) A.E.Murray	campbellii	flabellatum

Table 2. Excel Spreadsheet of "Acer list", containing a total of 344 maples which makes up the entire collection – contains key information for locating the maples in the garden such as the taxon name, species, and item location.

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4. Filter

The next step was to filter the data/maple information, to generate information of interest for the brochure. I created a format to show in order the stop number, taxon name, common name, the species origin, followed by a sentence describing the significance of this maple tree chosen. Then I got the Vancouver Tree App that was created by Douglas Justice, and searched each individual maple on the app, recording notable information and adding it to the table of maples. Also including an "*" before the stop number if this tree is featured on the Vancouver Tree App.

For example,

“1-2) Acer pictum subsp. Okamotoanum

Common Name

Korean

This maple is unique – existing only on one Korean island and has broad leaves with numerous pointed lobes.”

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5. Represent

Representation of the data was the next part, which was the next biggest part of my project. This consisted of representing the data which entailed choosing a visual model. For this project, I mainly worked with Adobe Illustrator. I plotted the maple trees on the Adobe base map and geo-referenced them from the bed maps that the trees were plotted onto originally during our walk through of the garden.

To improve the AI base map, I added details to it such as a pond that was missing, moved generalized signs for garden areas that were in the way of the stop numbers, and then drew the pathway with the curvature tool to represent the two different self-guided tours. I made the two walking tours different hues, that did not create sharp contrast with the basemap as there are already a lot of colours. Further, I used the tracing and curvature tool again to draw and create four different maple leaf symbols to represent four different categories of maple leafs by their species origin. I categorized them as *North American – Canada and United States*, *Japanese*, *Chinese*, and *Other – Korean, Himalayan, Russian, Garden Origin* as well as putting the number of each maple tree of that category in parenthesis next to the category.

A difficulty I encountered here was when categorizing the maple trees by origin it was tough to sort a few of the maples as several maples overlap in areas and extend over large areas. This is why I created a category for North America that includes both Canada and the United States as maples such as this one:

"*20) Acer pensylvanicum [Eastern North America]

"Moosewood maple"

This maple, striped green and white with broad and soft leaves, is known as moosewood maple and gets its name from the moose, deer, and elk that enjoy eating this maple in the winter."

This Acer pensylvanicum grows in both Eastern Canada and Eastern United States so in the Maple Information fold next to the map, I have included the more specific area of origin next to the name of the maple. For maples with an even more specific area these are included in the information panel as well such as:

"15-1) Acer glabrum var. neomexicanum [New Mexico, USA]"

With the conservation terminology that I gathered from the IUCN Red List of Threatened Species[6] I used Adobe Illustrator to create this visual aid to show how the conservation status of the trees are scaled from lowest importance to highest importance. I found it most effective to represent the lowest statuses from not evaluated, data deficient, and least concern on the left…to extinct as the conservation importance increases to the right. For the two maple trees at the UBC Botanical garden that are endangered and critically endangered, I highlighted this part of the

[6] IUCN Red List of Threatened Species. (2016). Retrieved November 30, 2016, from https://www.iucn.org/resources/conservation-tools/iucn-red-list-threatened-species

scale with red which is used as a warning colour and is effective in instantly attracting the viewer's eyes. I put the Chinese maple leaf symbol from the map representing the two maple species that originate in China above the endangered, and critically endangered status sections of the scale.

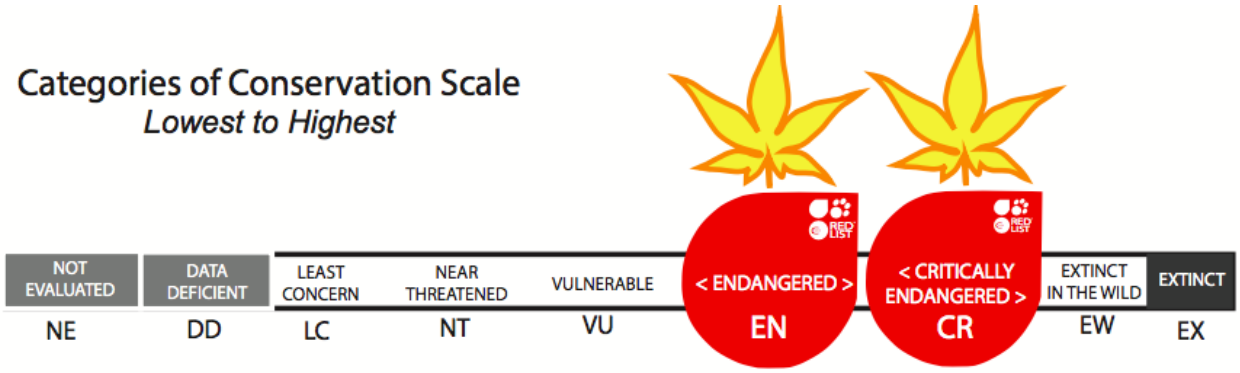

Figure 2. Displaying the Categories of Conservation Status on a scale from lowest to highest conservation importance from left to right, endangered and critically endangered status highlighted and representing the two Chinese maples in the tours.

When representing all the information gathered of the maple trees, before I began putting the brochure together I worked on putting the entire map together first shown in the figure below. I added pathway colour bars to the legend, as well as the maple symbols, and symbols for the endangered and critically endangered symbols I created the map and legend.

Figure 3. Entire Map of maple tree collection showcase.

Figure 4. Original legend for the entire garden map with symbols created for the maple tour.

6. Refine

When beginning to put together the brochure, I quickly realized that the entire map would not fit on the brochure to allow additional room for information about each maple tree stop as well as information about conservation and maple trees as I had intended to include.

Thus, I decided to use an inset map that was most effective to show the maple stops in a large enough scale for visitors to understand where the maple trees are located on the map.

This is the first two panels of the brochure showing the start of the first wheel chair accessible self-guided tour. To conserve space which became a large focus later on, when adjusting the brochure layout, I had to squeeze the legend into the bottom left of the inset map as well as decrease the spacing between each legend point. My goal was for the legend to still be clearly visible so I added a green background to the legend that was 50 % transparent.

Figure 5. Inset map of the first self-guided maple tree walking tour that is on a wheelchair accessible pathway highlighted in beige.

This is the North garden with maple tree stops 11-20. To conserve space again, I only included components of the Legend that pertained to this inset map.

Figure 6. Extended second maple tree walking tour of North garden passed the moon gate and tunnel of maple stops 11 to 20.

7. Interaction

At this stage, I was interacting with all the data I had acquired, parsed, filtered, mined, represented, refined, and experiencing difficulties along the way. There were several limitations that in turn made me go back to the filtering stage, or back to the representing or refining stage. It was a constant process of editing. These are such limitations that I experienced.

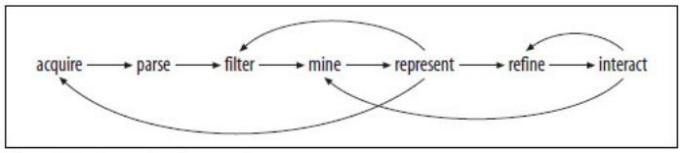

Figure 7. Interactions between the seven stages (Data Visualization, Ben Fry, page 15)

Limitations

I have already mentioned this first limitation repeatedly, but the issue of space was reoccurring so I had to filter through the data to make it as concise as possible for the sentence describing the maple.

Secondly there were so many maples which made it very hard to choose and created biases in deciding which maples were included. I had to take a few maples out of the map as there was not enough room to include all the maple information text.

Thirdly, I was quite new to using Adobe Illustrator, which made it a time-consuming process however I learned how to use several tools on my own. As this is a proprietary software, it allows you to complete advanced tasks and I was able to access a wide range of troubleshooting options and help from different help websites I came across by just searching my issue on google. The drawbacks to proprietary software such as Adobe Illustrator, is that it is very expensive and I was not able to purchase the software for a one time fee as AI is now accessed through a monthly or annual membership. I got a monthly subscription which allowed me to work on this assignment from home and on the weekends, and keep all my files on my computer and not worry about losing various AI files.

Lastly, the editing and filtering process seemed to not stop as there was always something to be improved. It was great to get feedback after my presentation and I made some more edits afterwards. I had created this world map to show the origins of the maple trees and although it is

quite small, I find that it shows the origins of the maple trees displayed in our garden spatially in the world in an effective way. After much thought, I decided to leave the world map on the brochure for now although I will most likely remove the map before it is printed. As Ben Fry states:

> "less detail will actually convey more information because the inclusion of overly specific details causes the viewer to miss what's most important or disregard the image entirely because it's too complex. Use as little data as possible, no matter how precious it seems." (Fry, 2008: page 17)

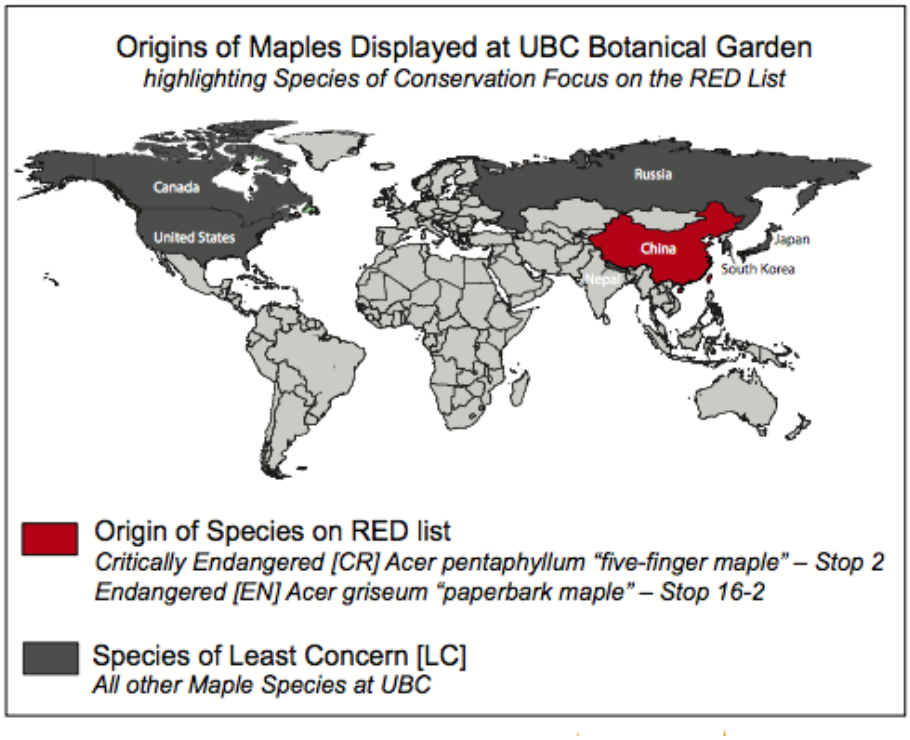

Figure 8. World Map of origins of maples displayed at UBC botanical Garden highlighting the species of conservation focus on the red list.

Vancouver Trees App New!

I included a section on the brochure to introduce the Vancouver Trees App as several of the maples of the walking tour are featured on this app. This allows guests to learn more about several of these maples through their phone as they are walking through the garden. The Vancouver Trees App includes a lot of information, and is almost an open source of data however it comes with a cost. The basic version of the app is two dollars and a second version of the app is ten dollars. If this app was free or by donation for the already paying guests, it would allow visitors to learn more as well as interact in a more effective way. Guests after they visit the garden could re-read and look up more information about the garden which will in turn inspire them to come back and visit the garden again.

Conservation Focus

I believe that by including this Conservation Focus on the brochure, it allows visitors to connect to the purpose of the maple tree tour. The viewers are not only learning just about maple trees but they are able to connect with them by highlighting the two trees that are endangered and critically endangered. This reinforces Tufte's point, to compare data or information in this case to something else more meaningful to allow people to grasp the information more effectively.

Working with the Community Partner

This project was by far one of my favourite projects that I did throughout my degree, as I could apply the knowledge that I had been learning over the last few months. Working for a community partner was also neat as it gave me experience working with real professionals and

producing this brochure that was going to be used inspired me put an immense amount of work into it. My community partner Tara Moreau and Douglas Justice from the UBC botanical garden were very flexible in scheduling all the meetings and very pleasant to work with. I am excited to follow-up with this project next semester, with some additional features to this map I would like to implement such as making a map on the open source software cartodb and adding photos of each maple tree as toggeable layers to each maple tree stop on the map.

References

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UBC Botanical Garden

LEGEND

- YOU ARE HERE
- PLANTED AREAS
- LAWN
- BRIDGE
- STAIRS
- BUILDINGS
- WASHROOMS
- TRANSIT
- PARKING
- MAJOR PATHS
- MINOR PATHS
- GREENHEART TREEWALK

MAPLE SHOWCASE

Celebrating Canada's national tree, with two self-guided walking tours for Canada's 150th birthday! 25 Unique species of maples originating across North America and Asia at the UBC Botanical Garden

LEGEND FOR MAPLE TOUR

(COUNT OF TYPE OF TREE ON GUIDED TOUR)

- STOP 1-10 WHEELCHAIR ACCESSIBLE TOUR
- STOP 11-21 EXTENDED TOUR
- NORTH AMERICAN (9) - CANADA, UNITED STATES
- JAPANESE (8)
- CHINESE (6)
- OTHER (4)- KOREAN (1), HIMALAYAN (1), RUSSIAN (1), GARDEN ORIGIN (1)
- "LOOK ALIKE" BUT NOT MAPLE (1)
- CR CRITICALLY ENDANGERED SPECIES (1)
- EN ENDANGERED TREE SPECIES (1)
- * MAPLE FOUND ON TREE APP

THUNDERBIRD STADIUM
GAIL'S ABODE
SERVICE YARD
ROSELINE STURDY AMPHITHEATRE
MAIN LAWN
ALPINE GARDEN
B.C. RAINFOREST GARDEN
CAROLINIAN GARDEN
BOREAL GARDEN
CONTEMPORARY GARDEN
GARDEN PAVILION
FOOD GARDEN
TAYLOR PLAZA
GARRY OAK
W 16TH AVENUE
STADIUM ROAD
TO NITOBE MEMORIAL GARDEN
SW MARINE DRIVE
MOON GATE & TUNNEL ACCESS TO NORTH GARDEN
ENTRANCE EXIT
SHOP & ADMISSIONS
ASIAN GARDEN
LAM CENTRE
ADMIN
LOOKOUT
UPPER ASIAN WAY
LOWER ASIAN WAY
WILSON GLADE
MEYER GLADE
GREENHEART TREEWALK
OLD MARINE DRIVE
Lam
Farges
Decaisne
Straley
Steam
Siebold
Cox
Rock
Wilson
Delavay
Staunton
Rehder
Beer
Forrest
Wharton
Perry
Farrer
Purdom
Ludlow
Tschonoski
Kindon Ward
Henry
Fortune
Fang
Sherriff
Hemsley
David
Handel-Mazzetti
Maack
Hu
Maximowicz
Sargent
Hooker
Souiel

Maple map arranged by Allie Peloquin
In collaboration with Tara Moreau & Douglas Justice
SEEDS Project

LEGEND FOR EXTENDED MAPLE TOUR

(COUNT OF TYPE OF TREE ON GUIDED TOUR)

- PATHWAYFOR EXTENDED TOUR - STOPS 11-21
- NORTH AMERICAN (9) - CANADA, UNITED STATES
- JAPANESE (8)
- CHINESE (6)
- OTHER (4) - KOREAN (1), HIMALAYAN (1), RUSSIAN (1), GARDEN ORIGIN (1)
- "LOOK ALIKE" BUT NOT MAPLE (1)
- ENDANGERED TREE SPECIES (1)

Maple information - *Stops 11-20*

●11-1) Acer macrophyllum
"Bigleaf maple" [Western N.Am, Native to BC]
This big leaf maple is known to have the largest leaves and seed of any maple in this garden and the world!

*11-2) Acer circinatum
"Vine Maple" [Western N.Am, Native to BC]
Grounded by deep, fibrous roots, check out its small, showy purple and white flowers in the spring.

*12) Liquidambar styraciflua [Easteirn N.Am into Central America]
"Look alike but not maple"
This produces a different fruit and sweet resinous sap (liquid amber) is exuded by the trunk when cut.

Maple information

*13) Acer palmatum var. dissectum group
"Lace Maple" [Japan]
This is a variation of the maples seen at stop 1-3 and 5, this lovely species shows off lace like leaves.

*14) Acer tataricum subsp. Ginnala
"Amur maple" *featured on Tree App!* [Russia]

15-1) Acer glabrum var. neomexicanum
"Neomexicanum" [New Mexico, USA]
This maple is an unusual variant of rocky mountain maple, and only has 3 leaflets when it most often has 1 leaflet.

15-2) Acer glabrum var. glabrum
"Rocky mountain maple" [Colorado, USA]
Notice the leaves on this maple are very small, this never quite makes a tree and is considered more shrub like than a tree.

16-1) Acer palmatum "Seiryu" [Japan]
This Japanese maple is notable for its green lacy leaves, they turn bright orange in autumn so keep your eyes out when you come back in the fall season!

*16-2) Acer griseum
"paperbark maple" *featured on Tree App!* [China]

17) Acer grandidentatum
"bigtooth maple" [Western N. America]
This is a miniature version of a sugar maple and grow in canyons of Utah and Arizona in the American SouthWest.

18) Acer x conspicuum
"silver vein" [Garden origin/hybrid]
This is an artificial garden creation, a hybrid of a Chinese and North American snakebark maple – with striking silver striped bark and does not exist in the wild.

*19) Acer pensylvanicum
"moosewood maple" [Eastern N. America]
Striped green and white with broad and soft leaves, this gets its common name "Moosewood" from the moose, deer, and elk that enjoy eating this in the winter.

*20) Acer saccharum
"sugar maple" [Eastern N. America]
Last but not least, this beloved tree was first discovered by the First Nations of Canada and is where the maple symbol for the Canadian flag originated and can be tapped to extract maple syrup! Yum!

MAPLES

Celebrating Canada's national tree at UBC Botanical Garden

CANADA 150

Visit our website for directions, transit info, admission rates, hours of operation, special events, courses and lectures & more.

G UBCgarden U UBCgarden

6804 SW Marine Drive, Vancouver, BC | 604.822.4208
botanicalgarden.ubc.ca/learn

LEGEND FOR MAPLE TOUR

(COUNT OF TYPE OF TREE ON GUIDED TOUR)

- STOP 1-10 WHEELCHAIR ACCESSIBLE TOUR
- STOP 11-21 EXTENDED TOUR
- NORTH AMERICAN (9) - CANADA, UNITED STATES
- JAPANESE (8)
- CHINESE (5)
- OTHER (5) - KOREAN (2), HIMALAYAN (1), RUSSIAN (1), GARDEN ORIGIN (1)
- "LOOK ALIKE" BUT NOT MAPLE (1)
- CRITICALLY ENDANGERED SPECIES (1)
- ENDANGERED TREE SPECIES (1)

Maple information - *Stops 1-10*

1-1) **Acer campbellii subsp. Flabellatum**
"Fan leaf maple" [Himalayas]
"Flabellatum" means to have fan like leaves, and this maple has large rounded clusters of flowers.

1-2) **Acer pictum subsp. Okamotoanum**
"Okamotoanum" [Korea]
This specie is unique – exists only on one Korean island and has broad leaves with numerous pointed lobes.

2) **Acer pentaphyllum**
"five-finger maple" [China (Sichuan)]
This rare, **critically endangered** species is native to the mountains of southwestern China – especially unusual for its extremely narrow lobes and shoots which create bamboo-like stems.

Maple information

3) **Acer oliverianum**
"Pumpkin Maple" [China]
This species displays an extraordinarily bright pumpkin orange colour as their big leaves change so make sure you come back to visit this in the fall!

4) **Acer carpinifolium**
"Toothed maple" [Japan]
This maple is unusual for being toothed meaning the edges are jagged, yet has unlobed leaves.

5) **Acer palmatum**
"Omato" [Japan]
This beautiful small maple is noted for its crimson (deep purplish-red) colour in autumn.

*6) **Acer cissifolium**
"Vine-leaf maple" [Japan]
This maple has separate male and female trees, females with small samaras in long, elegant, drooping clusters.

7) **Acer crataegifolium**
"Hawthorn maple" [Japan]
If you look closely, you can notice this specie has one of the smallest leaves that look remarkably like hawthorn (from the rose family).

8) **Acer pectinatum subsp. Laxiflorum**
"Loose flowered maple" [China]
This is known for its tiny and loose flowers, and the leaves of this tree appear more like a birch tree.

9-1) **Acer mandshuricum** [Korea]
Look for the sign for this maple, which highlights that it is known for its tolerance of extreme cold and its unusual foliage.

10) **Acer pubinerve**
"Chocolate maple" [China]
This specie's new growth in the spring has chocolate brown leaves with olive green stems, but don't eat me!

Vancouver Trees App New!

Browse our extensive catalogue of nearly a thousand different Vancouver trees, each one accurately described by its identification features, ecological needs and location. Search the library for tree images, view tree locations on maps, and more.

Learn more: botanicalgarden.ubc.ca/advice

Why Maples?

There are 130 Acer (Maple) species – half of this are represented at UBC BG. Maples are significant to us here in Canada, as the First Nations of Canada discovered the "sugar maple" Acer saccarum that can be tapped to extract maple syrup– and so it was chosen as a symbol for the flag and exists all over North America and across the globe.

Conservation Focus

What is the RED list?

We at UBC find it vital to emphasize the conservation status of each of our plant species. We use the IUCN Red List of Threatened Species™, a comprehensive inventory and authoritative guide to the global conservation status of plant and animal species and subspecies. It uses an established criteria to determine the extinction risk of species. Botanic Gardens Conservation International (BGCI) recognizes UBC BG as the second most important conservation collection of maples in the world

To learn more: www.iucnredlist.org

Origins of Maples Displayed at UBC Botanical Garden
highlighting Species of Conservation Focus on the RED List

Origin of Species on RED list
Critically Endangered [CR] Acer pentaphyllum "five-finger maple" – Stop 2
Endangered [EN] Acer griseum "paperbark maple" – Stop 16-2

Species of Least Concern [LC]
All other Maple Species at UBC

Categories of Conservation Scale
Lowest to Highest