# The Benefits of Food Foraging



Photo credit

Researched and written by David Hutchinson Edited and formatted by Jeremy Herman November 15, 2021

## **Table of Contents**

Introduction	3		
Northern California Wild Plants	4		
Table of Northern California Wild Plants	17		
Foraging Resources	18		
Plant Identification Resources			
Bay Area Native Plant Nurseries and Seed Banks			
San Francisco Forage Map (For Identification Purposes Only)			



Photo credit

## Introduction



Photo credit

When we think about gathering food in nature, we think about hunting animals for meat. We often forget that for many millennia, people foraged for plants. With a healthy degree of caution and some education or training, we can take advantage of nature's abundance. Taking the time to learn from experts about edible wild plants can spark a passion for our natural environment and our vital connection to it. Ethnobotany can help us learn to exist within nature rather than exploiting it.

To increase our knowledge about safely harvesting wild edibles, it's important to seek the help of local experts in your community. Ask them for guidance, then begin cautiously and slowly. Some plants are poisonous and can cause serious illness or even death, so be extremely careful when you forage. And keep in mind that some plants are incredibly potent. If you touch your eyes after handling a chili pepper, you're in for a world of pain.

Also remember that anyone can access public parks and city greenbelts, which means that they will probably be overharvested. Many of these areas are also contaminated by dangerous pesticides, heavy metals, toxins, and exhaust residue. But testing reveals that even with those contaminants, some plants are safe to eat after proper washing. If in doubt, however, it's best to be cautious.

When we begin to forage, we must keep in mind that over-harvesting decreases yields. To avoid that problem, we shouldn't take all the plants in a given area. But if we simply thin out an area and reduce crowding, plant populations can thrive. Taking invasive edible species can also benefit native plant populations by reducing competition, which can further increase an area's future yield.

Besides supplementing one's diet with delicious plants, foraging can also reduce the forager's carbon footprint. By foraging for wild edibles, a person can reduce their reliance on foods produced by factory farms. Foraging also reduces the environmental damage caused by chemicals, industrial processing, packaging, and shipping. It also makes hiking in nature a lot more fun.

Click <u>here</u> for an excellent article about ethical foraging for beginners.

## **Northern California Wild Plants**

## Poison Hemlock (Conium maculatum)

The first lesson that any foraging expert will teach a beginning forager is that many plants, both native and invasive, are highly toxic and can cause serious illness or even death. It's essential that you quickly learn to identify and avoid species like poison hemlock.





## Miner's Lettuce (Montia perfoliata)

Miner's lettuce is a native California plant with a long and storied past. It derives its name from early California gold miners, who harvested this spinachlike plant to avoid scurvy. It has a high concentration of vitamin C, and it can be eaten raw or sauteed as a green. It comes to season in late fall and early spring.





#### Yerba Buena (Clinopodium douglasii)

Yerba buena is the native species from which San Francisco derived its earlier name. It has a strong, minty flavor, and it makes a wonderful medicinal tea. It also makes a tasty seasoning for other foods. This is a very important plant in California's history. People have been eating it for thousands of years.

## Wild Radish (Raphanus raphanistrum)

Wild radish isn't native to California and some people consider it a weed but it offers local foragers many culinary delights. Wild radish, which appears mostly in March, is in the same family as broccoli, and it has a similar taste. You can use wild radish flowers in salads or dips, and some people bake it into cookies.



## Blue Dicks (Dichelostemma capitatum)

<u>Blue Dicks</u> is an edible plant that Native Americans have eaten for centuries. This plant species is most abundant after fires in chaparral habitats. When harvested, the corms are an excellent source of starch. The flowers and stems have a pleasant flavor and are an excellent way to add color and taste to a foraged salad.



## Yarrow (Achillea millefolium)

Although some consider <u>yarrow</u> a weed, it has numerous medicinal uses that date back millennia. It's also an excellent plant for speeding up composting in gardens, and it provides vital nutrients when turned into soil. Yarrow has a lovely flavor, but it can reduce pain and fever. It grows all over California, and it's easy to identify and harvest.



Photo credit



#### Photo credit

#### Thimbleberry (Rubus parviflorus)

Commonly found in the redwood understory, thimbleberry is relatively easy to identify, and it can please the palates of hikers in the know. Too fragile for commercial production, thimbleberry is well suited for jams and pies for those lucky enough to live near its habitats. Botanists are working to cultivate it in backyards.

## Pine Bark and Needles (Pinus cembroides, Pinyon Pine)

<u>Pine bark</u> and the bark from <u>other trees</u> was an important winter food source for many Native American tribes. Pine tea was an excellent way to help people avoid scurvy, but in spite of being close to pine trees, whose bark they could have <u>harvested</u>, thousands of people died of this once dreaded disease. Fried as strips in generous amounts of oil, the inner layer cooks up crisp and tasty. The pollen flour can be stored and <u>consumed</u> in the winter, and seeds from cones are delicious as well. Foragers should avoid some pines (e.g., ponderosa and yew) because they are poisonous. Look for white pine, slippery elm, black birch, yellow birch, red spruce, black spruce, balsam fir, and tamarack.



Pine bark bread, Photo credit

Photo credit

#### Common Hogweed (Heracleum sphondylium)

Common hogweed, not to be confused with the dangerous giant hogweed, was a staple in Slavic countries for centuries, and it was the main ingredient for borscht. It can be harvested when young, and it's great for canning and lacto-fermentation (that's the process that produces dill pickles, kimchi, and sauerkraut). The older leaves need to be stripped. This plant resides in a family that has highly dangerous relatives, so be cautious when identifying it. Forage with skilled local experts when starting out.



Photo credit

#### Cattails (Typha)

<u>Cattails</u> or bulrushes have been a vital food source for thousands of years. The lower leaves can be harvested for salads, the pollen makes great flour for bread or pancakes, and the roots can also be dried for flour. The shoots have a texture like asparagus, and they are excellent roasted or stir fried. Wear a mask when collecting pollen because it tends to spread in the air.



Photo credit

## Manzanita (Arctostaphylos)

Manzanita is common all over the West in dry, scrubby landscapes. Few are aware that the berries and flowers are edible and delicious. The flowers taste best when young because they get tart as they age. The berries become mature June through October, but they can be picked ripe or unripe. The berries taste a bit like apple, and they are great for ciders, for baking, or on ice cream. This wonderful plant has many uses.



Photo credit: Hank Shaw

#### Fennel (Foeniculum vulgare)

Fennel has a strong scent of licorice, and it can be a wonderful spice for pastas and such. While not native to California, it has spread over much of the world. The seeds can be dried for use as a spice, and it can be used to flavor pickling. All parts of this plant are edible. Don't confuse fennel with the very toxic wild parsnip or giant hogweed, which have no licorice scent and whose leaves are broader than fennel leaves.



Photo credit

## Stinging Nettle (Urtica dioica)

Many have come across <u>stinging nettle</u> while on a hike. The plant causes a painful rash. It's loaded with nutrition though, and when cooked, the needles disappear. The cooked leaves make a great ingredient for tea, soup, or salsa. Nettle tincture also has many medicinal qualities, and you can use it to treat allergies. Just make sure to wear gloves while harvesting this weed.



<u>Photo credit</u> <u>Photo credit</u>

#### Milk Thistle (Silybum marianum)

Milk thistle is a common plant that has medicinal uses, including repairing liver damage. The stems, flowers, and leaves are edible. De-spined, the leaves can be sauteed with other greens, and the soaked stems are also tasty. The flowers are similar to artichoke heads. Be sure to wear protection when picking milk thistle because the spines are painful.



Photo credit

#### Wild Mustard (Sinapis arvensis)

<u>Wild mustard</u> belongs to the same family as cabbage, broccoli, and turnips. The flowers, seeds, and leaves are all edible, although the leaves of young plants taste best. From spring to summer, wild mustard blooms for harvesting, but it can be dangerous for livestock. You can use it as a spice, and, of course, it makes one of the world's favorite condiments.



<u>Photo credit</u> <u>Photo credit</u>

## Mallow (Malva)

<u>Mallow</u>, which belongs to the okra family, is another often-overlooked edible green. It's easy to identify because it has one round stem that connects to a single leaf. It's slightly slimy when crushed, and the leaves have a bit of peach fuzz. All parts are edible, including the seeds. You can cook mallow leaves and eat them like spinach, deep fry them, or add them to soups.



Photo credit

## California Brome (Bromus carinatus)

<u>California brome</u> is a native grass that served as a staple for indigenous peoples for thousands of years. As monoculture farming has increased, grasses like brome have fallen to the wayside. Controlled burns produce fresh vegetation each year, allowing this grass to thrive and renew and attracting game. The grass can be threshed in a basket to winnow the chaff, then the seeds can be mashed to produce a flour for bread. Combined with other wild edibles, brome is nutritious and connects our future with a living past.



Photo credit Photo credit

#### Nasturtium (Tropaeolum tuberosum)

Nasturtium has an astounding amount of vitamins and nutrients. It also contains antibiotic and antiviral compounds. All parts of this particular nasturtium are edible, including the tuber, but not all varieties are edible. In a garden, it's an excellent sacrificial plant that grows easily and attracts insects, so they will leave your other edibles alone.



Photo credit

Aster and other wildflowers

## Chicken of the Woods (Laetiporus)

Chicken of the woods, morels, and chanterelles are all fairly easy to identify, so they are a good starting point for beginning foragers. That said, you should always rely on expert advice. Some mushrooms need to be cooked carefully to make them edible, and many can be hard on the stomach if eaten at their later stages. These are wonderful, wild foods that can complement many dishes. Just approach them with caution.



Photo credit

## Curly Dock (Rumex crispus)

As with many plants, <u>curly dock</u> contains high amounts of oxalic acid, which can cause severe indigestion. But it's also high in vitamins and iron. Like many plants that are otherwise inedible, it's safe to consume after boiling and changing the water two or three times.



Photo credit

## Chickweed (Stellaria media)

Chickweed is known as a super food because of its nutritional value. It has a wonderful, mild flavor (people often compare it to corn silk), making it an ideal garnish or an excellent addition for salads. You can also cook it and eat it like spinach. Foragers all around the world seek chickweed.



Photo credit



## Oxalis or Sour Grass (Oxalis spp.)

If you grew up in California, you probably learned about oxalis as a child. Its intense, lemony flavor can be delightful. As with spinach, beets, and chard, it's high in oxalic acid, so be careful not to overindulge. It's a wonderful addition to a meal, either raw or cooked. Avoid foraging where pesticides are used.

Photo credit

### Fireweed (Chamaenerion angustifolium)

Fireweed is a versatile plant with a fascinating history. It can quickly establish a root system to draw nutrients from the soil, so it has been used for centuries to reestablish vegetation in fire-scarred habitats. It can also be used to clean up oil spills. And fireweed is edible. The flowers can be made into jelly, and the stems can be stripped so the inside can be eaten, raw or cooked. The dried leaves can also be made into a medicinal tea.



Photo credit

#### Wild Onions (Allium burlewii)

While less renowned than the famous East Coast ramps, <u>wild onions</u> taste a lot like chives. The leaves and the corms are excellent for culinary use. They are often weeded from lawns, but they can still be over-harvested, so forage with care. Beware of toxic lookalikes, which we have listed below.



Photo credit Photo credit

#### Milkweed (Asclepias)

Milkweed is an excellent forage edible for people and insects alike. More than 400 species consume the plant, notably the monarch butterfly. Although it has long been considered a weed, it can be an important source of food for monarch caterpillars. Many people are unaware that milkweed is also a delicious treat for people. You can find excellent tips for ethical foraging and recipes <a href="here">here</a>. So whether you want to attract butterflies or grow a tasty source of vitamin C, consider planting milkweed in your garden. The more we grow the better.



Photo credit

## Dogbane or Indian Hemp (Apocynum cannabinum)

When you go out foraging, don't confuse milkweed with <u>dogbane</u> (aka Indian Hemp), its toxic lookalike (look for milkweed's hollow stem). Some indigenous tribes used dogbane fibers to create a durable thread that's even stronger than cotton, but this plant is poisonous, so beware when you begin foraging.



Photo credit

## **Table of Northern California Wild Plants**

	Poisonous	Edible	Uses
Hemlock	Х		
Miner's Lettuce		Х	Eaten raw or sauteed as a green
Yerba Buena		Х	Medicinal tea, seasoning
Wild Radish		Х	Salads, dips, cookies
Blue Dicks		Х	Salads, fried, roasted
Yarrow		Х	Pain & fever reducer; composting
Thimbleberry		Х	Jams and pies
Pine Bark & Needles		Х	Bark can be fried in oil; needles can be made into a tea; pollen can be made into flour; seeds are tasty
Common Hogweed		Х	Eaten fried; seeds can be a spice
Giant Hogweed	Х		
Cattails		Х	Lower leaves good for salads; pollen can be made into flour; shoots can be roasted or stir fried
Manzanita		Х	Great for ciders, for baking, or on ice cream; young flowers make a good garnish
Fennel		Х	Leaves used for seasoning foods; stalks and leaves good for tea; seeds can be used as a spice
Wild Parsnip	Х		
Stinging Nettle		Х	Cooked leaves good for tea, soup, or salsa; nettle tincture has medicinal uses
Milk Thistle		Х	Medicinal uses; de-spined leaves can be sauteed like greens; flowers similar to artichoke heads
Wild Mustard		Х	Flowers, seeds, & leaves edible; seeds good as a spice or condiment
Mallow		Х	Eat leaves like spinach, deep fry, add to soups
California Brome		Х	Seeds can be made into flour
Nasturtium		Х	Salads, dips, sauces; sacrificial plant in gardens
Chicken of the Woods		Х	Blanched, sautéed, fried, or baked—but be cautious because some people have a bad reaction
Curly Dock		Х	Boil, but change water several times
Chickweed		Х	Garnish and salads
Oxalis or Sour Grass		Х	Wonderful addition to meal, raw or cooked
Fireweed		Х	Flowers can be made into jelly; stems can be stripped & eaten; dried leaves good for medicinal tea
Wild Onions		Х	Eat like chives
Milkweed		Х	Eat any way you'd eat asparagus
Dogbane	Х		

## **Foraging Resources**

#### Berkeley Open Source Food:

- <a href="https://forage.berkeley.edu/edible/">https://forage.berkeley.edu/edible/</a>

This plant wiki has a database of more than 7,000 entries:

- https://practicalplants.org/wiki/Practical Plants

Philosophy of local foraging video:

- https://youtu.be/RQhnzwkphk8

Pascal Bauder is an extraordinary forager and chef, who often focuses on gathering, cooking, fermenting, and consuming invasive species to restore ecosystem health:

- <a href="http://www.urbanoutdoorskills.com/">http://www.urbanoutdoorskills.com/</a>

This is an excellent series on Northern California wild edibles, beginning with cattails:

- https://youtu.be/h673nNgjhhc

Foraging in San Francisco with Outdoor Chefs:

- https://youtu.be/pgUHVF7U56I

Chanterelle hunting in Northern California:

- https://youtu.be/ 8vBfMpjlOw

This is a wonderful wild plant blog with companion podcasts:

https://wildplantculture.com/home

Guerilla Grafters is engaged in a scientific and artistic project to graft fertile branches onto sterile fruit trees in cities around the world in order to make food available to residents and to remind urban dwellers that the land provides life:

- <a href="https://hoodline.com/2015/12/guerrilla-grafters-quietly-grow-fruit-on-city-trees-using-latest-tech/">https://hoodline.com/2015/12/guerrilla-grafters-quietly-grow-fruit-on-city-trees-using-latest-tech/</a>

Here's a wonderful explanation of grafting fruit trees and the science behind them, a companion to the Guerilla Grafters project, and an edible urban fruit tree map:

 https://www.ncat.org/grafting-fruittrees/#:~:text=The%20craft%20of%20grafting%20relies,scion%20and%20stock%20are% 20smooth

Check out these crowd-sourced global maps of urban fruit trees, often on public land:

- https://fallenfruit.org/projects/public-fruit-maps/
- https://fallingfruit.org/?c=forager%2Cfreegan&locale=en

## Plant Identification Resources

#### **Plant Identification Apps**

<u>INaturalist</u> and Seek are mobile app projects that help enthusiasts identify plant and animal species from around the world. As a joint project between the California Academy of Sciences and the National Geographic Society, these important tools allow biologists to collect and conserve biodiversity using data contributed by citizen scientists, who can share the findings with repositories like the <u>Global Biodiversity Information Facility</u>.

#### **Foraging Classes**

- <a href="https://www.foragesf.com/">https://www.foragesf.com/</a>
- https://trackersbay.com/adult/wilders/wild-plants-class.php
- <a href="https://www.verlocal.com/event/sf-outdoors-forage-edibles">https://www.verlocal.com/event/sf-outdoors-forage-edibles</a>
- <a href="https://www.meetup.com/Bay-Area-Forage">https://www.meetup.com/Bay-Area-Forage</a>

#### **Foraging Books**

- <a href="https://shop.aer.io/Heyday/p/The Bay Area Forager Your Guide to Edible">https://shop.aer.io/Heyday/p/The Bay Area Forager Your Guide to Edible</a>
Wild\_Plants\_of\_the\_San\_Francisco\_Bay\_Area/9780615496122-4706

## **Social Media Groups**

There are many excellent social media groups that allow amateur foragers to get help identifying edible plants, to engage in discussions with fellow beginners or experts, and to share the bounty of their foraging efforts. Many of these groups have very strict guidelines, so be sure to read them and follow the rules. These groups are labors of love, often created by committed and helpful volunteers.

#### On Facebook

- Plant Identification
- California Native Plant Society
- Pacific Northwest Mushroom Identification Forum
- Wild Edibles
- Foraging California
- Punk Rock Gardening and Bird Watching
- Foraging and Feasting
- Foraging 101
- Foraging and Growing
- Ancestral Plants



## Bay Area Native Plant Nurseries and Seed Banks

Many forage plants can also be successfully grown in backyard gardens. Try sourcing these plants and growing them for food. By focusing on native species, habitats can be restored to health, encouraging the vitality of local pollinators and fauna.

#### **Native Plant Nurseries**

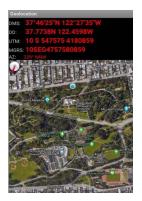
- http://www.yerbabuenanursery.com/
- http://www.baynatives.com/
- https://oaktownnursery.com/
- http://www.eastbaywilds.com/
- https://www.sutrostewards.org/
- https://nativeherenursery.org/
- <a href="https://www.parksconservancy.org/programs/fort-funston-nursery?referrer=https%3A//www.google.com/">https://www.parksconservancy.org/programs/fort-funston-nursery?referrer=https%3A//www.google.com/</a>
- <a href="https://www.watershednursery.com/">https://www.watershednursery.com/</a>
- https://cnlnatives.com/
- https://www.mostlynatives.com/
- <a href="https://oaec.org/?utm\_source=google&utm\_medium=organic&utm\_campaign=gmbwebsite">https://oaec.org/?utm\_source=google&utm\_medium=organic&utm\_campaign=gmbwebsite</a>
- http://www.plantnative.org/nd\_ca.htm
- https://calscape.org/plant\_nursery.php

#### **Native Seed Banks**

- https://www.cnpssd.org/sources-for-seeds-and-bulbs-of-california-natives
- https://theodorepayne.org/plants-and-seeds/
- https://arboretum.ucdavis.edu/seeds
- https://www.mynativeplants.net/sources-for-california-native-plant-seed.html
- https://www.hedgerowfarms.com/

# San Francisco Forage Locations

## (For Identification Purposes Only)



This location in Golden Gate Park is home to the park's oldest trees, a stand of oaks once harvested for firewood by survivors of the 1906 earthquake. It provides a habitat for seasonal edible wilds, including miner's lettuce, acorns, dock, and wild radish.

This location in the park produced an excellent chicken of the woods fungus on September 6, 2020. There

are no real lookalikes to this tasty edible mushroom, so it's an excellent species for beginners. It's essential to be cautious with the identification of mushrooms, so make sure to seek advice from experts. When older, chicken of the woods can be difficult on some people's



stomachs. It's vital that you educate yourself before consuming any wild edibles.



This location in Golden Gate Park near the log cabin and Stow Lake has yielded many edible wilds, including this broadleaf dock (Rumex obtusifolius). Other edible wilds include dandelion, wild plum, nettles, giant puffball fungus, mallow, chicken of the woods, and nasturtium.

This location in the redwood grove in Golden Gate Park yielded a first-ever foraging find in mid-September: edible shaggy mane mushrooms. They were already upended, but identification was still possible. These should return around the same time every year, in case you want to see them yourself.

