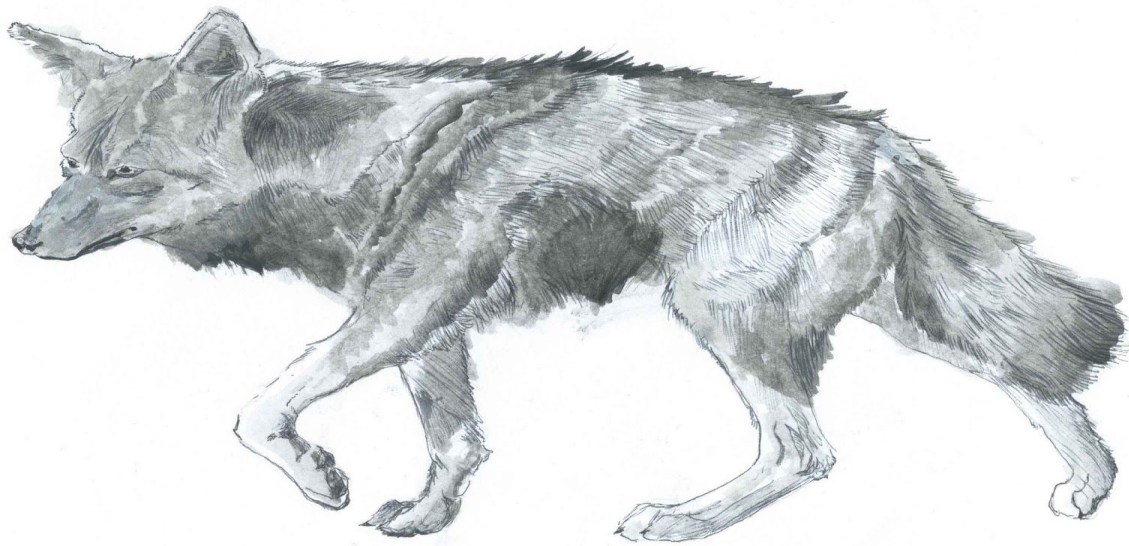


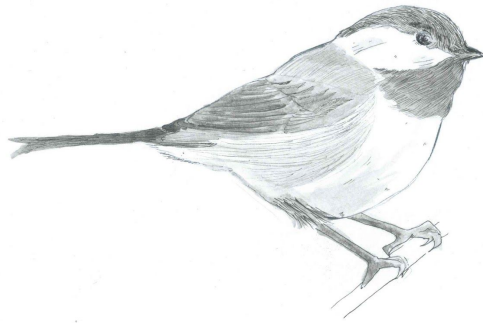
CULTIVATING AWARENESS:



A GUIDE TO EXPANDING YOUR SENSES IN NATURE

BY ELLEN STONE

California Naturalist Program 2019

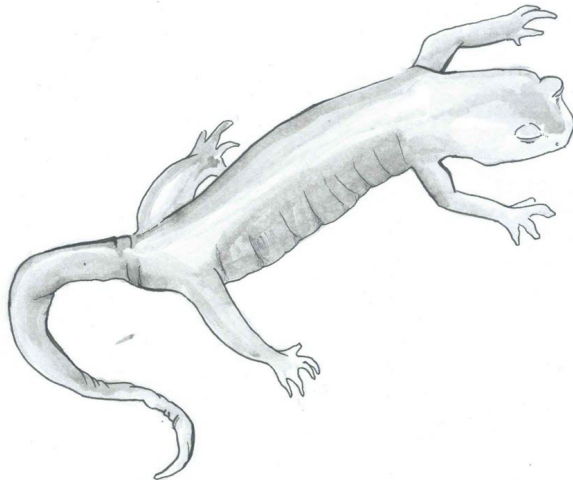


*I thought the earth
remembered me, she
took me back so tenderly, arranging
her dark skirts, her pockets
full of lichens and seeds. I slept
as never before, a stone
on the riverbed, nothing
between me and the white fire of the stars
but my thoughts, and they floated
light as moths among the branches
of the perfect trees. All night
I heard the small kingdoms breathing
around me, the insects, and the birds
who do their work in the darkness. All night
I rose and fell, as if in water, grappling
with a luminous doom. By morning
I had vanished at least a dozen times
into something better*

-Sleeping in the Woods by Mary Oliver

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An Introduction

Take a walk through the woods with your senses wide open - there is so much to experience. The ethereal song of the hermit thrush, cicada husks camouflaged on soft redwood bark, the subtle scent of yerba buena crushed underfoot as you make your way through the forest.

So much can be revealed to us when we take the time to focus our senses and immerse ourselves in observing our surroundings. My intention with this guide is to help you cultivate your awareness skills through journaling prompts, games, stories, and mindfulness exercises. There are many ways of knowing, of walking through natural spaces in reverence and observation; I have simply outlined a few practices that I have personally benefited from during my experiences as an educator.

I think that one of the most important things that we can do for ourselves as budding naturalists is to learn how to hone our senses while in nature and to continuously cultivate them throughout our lives. When we slow down, we begin to notice more things - noticing, in turn, leads to connection and familiarity, which hopefully leads to a desire for stewardship, a greater understanding of sense of place, and hopefully a passion for educating others. By familiarizing ourselves with the land in this way, using all of our senses, we can also learn to recognize patterns and complexities of the interconnected relationships that exist in nature. We begin to recognize the land as a pedagogy - the original teacher with whom we build a relationship, tend to, listen to, and learn from.



*"Knowing that you love the earth changes you, activates you to defend and protect and celebrate. But when you feel that the earth loves you in return, that feeling transforms the relationship from a one-way street into a sacred bond." - **robin wall kimmerer***



Land Acknowledgement

Before I begin, I would like to take the time to acknowledge the painful history, resilience, and cultural relearning of the original people of the land that I live and work on. We are located on traditional and unceded territory of the Awaswas-speaking Uypi (Yu-Pi) tribe. The descendants of this group are known as the Amah Mutsun Tribal Bands - **who are currently working on efforts to restore traditional stewardship practices on the land and heal from historical trauma.**

I highly encourage you all to visit amahmutsun.org to learn more. We mustn't stop at recognition, however - you can also donate to the landtrust by visiting <https://donorbox.org/amah-mutsun-land-trust> your donation will help protect native species/control invasive species, encourage the restoration of traditional ecological knowledge, support the protection of culturally important sites, and promote the education and engagement of current and future native stewards.

A large majority of us are settlers upon this land and therefore it is our duty to inform ourselves by listening to those who remember how to tend to the land, and supporting the work of people who are fighting to rebuild their culture and traditional ways of life.

SIT SPOT

This is an invitation to sit with the earth - to drop-in to the practice of connecting, observing, and noticing your surroundings. Nothing is required for this practice - except, perhaps, a journal and writing utensil if you wish to record your thoughts, observations, and questions. All you need is a place outside and your own curious self, as well as a willingness to be present.

The first step to beginning this activity is to choose your spot. Preferably, your sit spot should be one that you are able to return to over and over again. The first time you get comfortable in your sit spot, try to just observe and take in the details of the place. Be as still and quiet as you can and make mental notes of what you can see, hear, feel, or smell.

With time and practice, you will build a relationship to your spot and an ability to recognize patterns or changes that occur in your surroundings. Spend a year or two in the same spot and you will be well aware of seasonal changes (ripening blackberries, the call of certain migrating birds, changes in foliage color). I suggest bringing a journal along with you so that you can document your observations, thoughts, feelings, any other notes you make while at your sit spot. Furthermore, all of the activities and practices included in this guide can be easily done in your sit spot to help cultivate awareness.

What are some changes you can observe in your spot in just a few weeks?

50 Sit Spot Nature Journaling Prompts

<ol style="list-style-type: none"> 1. Draw a map of your sit spot. 2. Why did you choose this place? 3. What is the temperature and weather like in your spot today? 4. Are there any unusual or distinct smells that jump out at you? 5. What colors do you notice in your spot? 6. What animals do you think pass through this area? 7. What does the soil look like beneath you? 8. Can you hear any sounds in your spot? 9. How many different types of plants can you see? 10. Do you think there are any plants around you that act as food sources for animals? 11. If you look close to the ground, can you see any insects? What do they look like? 12. Do you notice any animal tracks near your spot? 13. Are there any sources of water nearby? 14. What do you think this place looked like 100 years ago? 1,000 years ago? 10,000 years ago? 15. Lie back and look up at the sky. Is there a canopy blocking your view? What shapes are the clouds making? Can you make out any birds flying overhead? 16. What do you think is the geological makeup up this place? 17. Write about a plant you have never seen before. 18. Draw a rough sketch of your spot. 19. Draw the thing that most interests you in your spot. 20. Is there evidence of fire in your spot? 21. How well-lit is your sit spot? How do you think the amount of light affects what can grow there? 22. Can you observe any bird's nests from where you are? 23. Draw a sketch of a nearby leaf. 24. Are there any bones in your spot? 25. How about fur or feathers? 	<ol style="list-style-type: none"> 26. What type of environment do you think you are in, and why? 27. What changes after a rainstorm hits your sit spot? 28. Pick one bird call and see if you can hear that call every time you visit your spot. 29. What factors (environmental and human-made) shaped the spot you've chosen? 30. Write about what you think this place will look like in 30 years. 31. What makes you the most curious about this place? 32. Which plants do you think are non-native? Are they invasive? 33. Try to stay in your sit spot for a full day and see what changes occur over that period of time. 34. Find five different textures (being mindful of plants like stinging nettle and poison oak) and write about them. 35. How might your sit spot look from the perspective of a bird in the trees? 36. What about the perspective of an insect on the ground? 37. If it's safe, go to your sit spot at night (with a headlamp) and see if you notice anything different. 38. Visit your sit spot at dawn. 39. Does this place remind you of anywhere else you've been in nature? 40. Can you identify any flowers blooming? 41. If you could give your place a made-up name, what would you call it? 42. What direction are you facing? How might that affect the environment? 43. Is your spot on flat ground? A slope? 44. Carefully flip over some rocks or logs (making sure to flip away from you and to always remove any creatures like salamanders before placing the log back down). What did you find? 45. Are all the plants looking healthy in your spot? 46. Take in a 360 degree view of your spot. 47. Cup your hands around your ears to make "deer ears" and see if there are any interesting sounds you can pick up on. 48. What patterns can you begin to notice? 49. What's the strangest thing you can see in your spot? 50. What do you think lives underground beneath your spot? Do you notice signs of digging?
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SIGHT

"One way to open your eyes is to ask yourself, "What if I had never seen this before? What if I knew I would never see it again?" -Rachel Carson

Once on an early morning walk to Mima meadow, I spotted two young coyotes running around in the first light of the day. I made my way to the edge of the forest, stopping momentarily to witness a Red Shouldered Hawk swoop overhead and then dive down into the field to grab an unsuspecting prey. I wondered what it would be like if I had to get my breakfast in that way and how it would feel to track my prey from above. I dipped down into the forest, making my descent as my eyes slowly adjusted from the bright meadow to the cool, shaded understory. As I made my way down, I noticed that the things that caught my eye the most amongst the green and brown tones were small white flowers - trillium, pacific starflower, redwood sorrel, to name a few. I wondered if these were the flowers I would gravitate towards if I were a small pollinator in this vast expanse of forest.

I sat down at the water's edge when I reached the bottom, but something was tugging at my intuition. I didn't get up to leave, but had my senses on high alert. I breathed in the smell of the damp earth below me and kept completely still, letting my eyes glaze over while keeping them wide open as if I were an owl. I began to notice movement in my peripheral vision, just to the right of me. Two small figures were just outside the limits of my vision, and so I shifted my head, slowly and only very slightly, towards them. The two coyotes I had seen previously were now sitting less than 50 feet from me, lapping up water from the creek. I gazed at them until the one closest to me noticed that I had shifted my gaze upon them - they immediately sprung up and began racing back up the hill, into the sunshine.

Many animals use their sight to sense when predators are near or to track down food. The following activity will help train your visual awareness by expanding your peripheral vision and viewing the world through the eyes of an owl.



Owl Eyes

Picture this: it's night, and you are walking through the woods with only the light of your headlamp to guide your way. From up in the trees you spot a barn owl - its body still and its eyes fixed into a wide, unmoving stare. Suddenly, silently, it swoops down from its perch to grab a small mouse on the forest floor that went unnoticed by you.

Owls are keen nocturnal hunters and have many adaptations for being able to hunt at night. Their large eyes are set in their head and they are able to swivel their head around 270 degrees. Their eyes are also extremely light-sensitive - they contain about a million rods and have a special membrane behind their retina that allows for more light to reach them at night.

Imagine that you are an owl - you can't move your eyes in your sockets so you have to pick a single point straight ahead of you to stare at and then rely on your peripheral vision.. Soften your gaze and notice that you have 180 degree vision. Bring your hands straight out in front of you and wiggle your fingers. Now slowly move your wiggling hands to the edges of your vision - see how far you apart you can move your hands before you can't see them anymore. You can stretch the limits of your vision by stretching one hand up and the other down. Now focus on your surroundings - attempt to capture the tiniest movements from where you are while taking in the textures, shapes, and colors of your environment.

What did you notice with your new "Owl Eyes"?

I Notice, I Wonder, It Reminds Me Of...

The following prompts have been borrowed from the wonderful BEETLES (Better Environmental Education, Teaching, Learning, and Expertise Sharing) program at the Lawrence Hall of Science in Berkeley, CA as well as John Muir Laws.

They are wonderful to use in combination with nature journaling because they allow you to follow numerous and never-ending lines of curiosity that eventually lead to more questions and connections, which opens up even more channels of inquiry...you will never be bored!

You can either choose to focus on one small object that you find - an insect, shell, or one specific plant, perhaps - or turn your questions to the larger environment as a whole.



I notice...

I wonder...

It reminds me of...

SOUND

Breeze shaking rattlesnake grass, the gentle burble of a stream, clicking cicadas in the warmer months. The sweet song of a Pacific wren, harsh cry of stellar's jay, tap-tap-tap of a woodpecker. Squirrels chatter, birds alarm, frogs call - and here you are, caught up in nature's cacophonous symphony of crescendoing melodies and harmonies.

Learning how to identify the names of calls, songs, and alarms of birds and other creatures takes time and patience, but there are simple activities that you can do anywhere you go that will help train your ears. The sound mapping activity on the following page lets you simply sit and take notes on what you can hear around you - no need to know exactly what species is making each noise. Once you've done this, you may be curious about a particular repetitive sound - perhaps you'll be able to find a chickadee nest up in the trees or a Pacific Chorus frog deep in the grass!



Sound Map

Materials needed:

- pen or pencil
- paper
- your ears!

- 1.) Find a comfortable seat at your chosen spot.
- 2.) Mark a dot in the center of the paper - this will represent you in your current location.
- 3.) Set a timer for as long as you'd like, whether it be a minute or ten.
- 4.) Now, you're off! With eyes either open or closed, listen. When you hear a sound, open your eyes and mark where you believe it came from on your paper using any symbol of your choosing. Continue until the timer goes off.

*You can repeat a symbol if you begin to hear the same sounds more than once.

My Sound Map

TOUCH

There is so much to be gleaned from having a physical connection to the earth. Some of my favorite sensations in nature include the velvety-soft feeling of hazelnut leaves, sand beneath my feet while cool waves wash over them, and the way that fog cools my skin after hiking up to a peak.

What are some of yours?

The following activity is a real test - not only do you have to rely on what you can feel with your hands, but also what you can feel beneath your feet. Grab a partner and try out *Meet a Tree!*



Meet a Tree

1. Have your partner close their eyes throughout the duration of steps 1-3. Spin them around in a circle 2-3 times in a spot of your choosing. Lead them to a tree - taking care to tell them when to step over branches or logs and making sure that they are not running into any hazards (poison oak or a twisted ankle would really spoil the fun). Try to zig-zag your path to the tree instead of just taking a straight path!
2. Let your partner take their time to feel the tree. If you are the one being led, maybe test to see how big the trunk is by putting your arms around it. Is the bark bumpy or soft? Does it have any branches, scars, or burls to make it distinct? Does it have a particular scent?
3. Lead your partner back to the spot they started - once again warning them of potential dangers, zig-zagging your path, and spinning them around 2-3 more times once you are back in your original spot.
4. Ask your partner to open their eyes and try to find the tree that they just "met".
5. Switch partners and repeat!

**Once you complete this activity, you and your partner may want to take the time to journal about the trees that you chose for each other. Guiding prompts can be found on the back of this Page.*

Here is a space where you can sit at the base of your tree and take time to write down what you notice about it. Do you know its name? If not, what would you call it? What are its primary colors? Are there any leaves? How does the bark feel on your hands? Does it have fruit or nuts? Do you notice any damage from fire or insects? How old do you think your tree is? You can even draw your tree, if you'd like.

TASTE

Learning about and being nourished by edible wild foods is another way to connect more deeply with the natural world. Knowing the names of plants when we step outside is one thing, but to be able to know which ones we can eat is empowering and can help us to familiarize us in our surroundings.

Of course, you should **never** eat wild foods without being 100% confident that it isn't poisonous. I recommend looking up local plants that are poisonous in field guides and online to get to know plants that you should absolutely avoid - poison oak and poison hemlock to name a few.

I have provided a list of some of my favorite plants to nibble on when I am in nature, but **I highly recommend doing your research or going out with a knowledgeable guide before venturing out and trying plants.**

***Before you partake in wild edible foods...some words to remember:

“The Honorable Harvest, a practice both ancient and urgent, applies to every exchange between people and the Earth. Its protocol is not written down, but if it were, it would look something like this:

Ask permission of the ones whose lives you seek. Abide by the answer.

Never take the first. Never take the last.

Harvest in a way that minimizes harm.

Take only what you need and leave some for others.

Use everything that you take.

Take only that which is given to you.

Share it, as the Earth has shared with you.

Be grateful.

Reciprocate the gift.

Sustain the ones who sustain you, and the Earth will last forever."

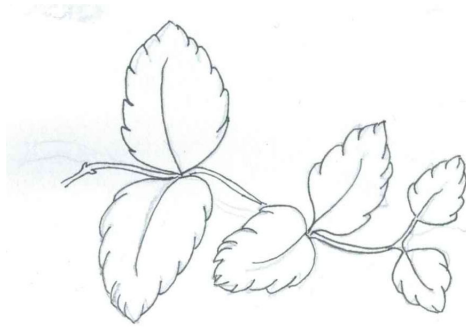
-Robin Wall Kimmermer

My Favorite Wild Foods

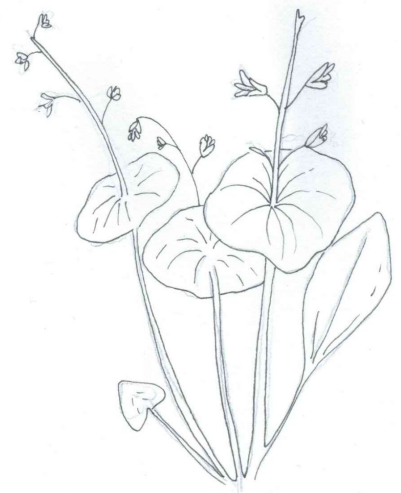
Manzanita berries - "manzanita" translates to "little apple" in spanish - indeed, these little red berries look just like miniature apples! They are ripe in the summer and have a sweet somewhat chalky texture. Just suck on them and don't swallow the seeds - but they are beautiful little half-moons, so make sure to check them out before you spit them out!

Miner's Lettuce - a delectable addition to springtime foraged salads. They have the same texture/taste as spinach and can be found growing throughout spring.

Yerba buena - an aromatic treat for those who keep their eyes



on the ground while walking through the shaded canopy of the redwood forests. I like to bring hot water with me on hikes and add a few leaves to create mint tea that is calming and refreshing!



Redwood sorrel - look around the forest and you'll most likely see big clovers with three leaves surrounding the base of redwood trees . These clovers contain oxalic acid, just like the sourgrass that you may have munched on as a kid, so they will have a sour taste!



Rattlesnake grass - named because their leaves look much like the tail of a rattlesnake. They make a pleasant rattling sound in the summertime when the breeze blows through them. In the spring they are especially pleasant to eat - they taste like sweet peas and are non-native/incredibly invasive - so feel free to munch away when you spot them!

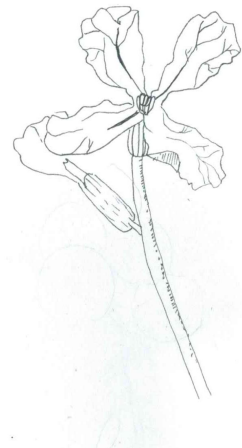


Fennel - if you like liquorice, then you'll love the way this plant tastes. You can eat the root - in fact, you may see that part of this plant in salads and grown in grocery stores! The feathery leaves are good to eat as well. I like to snack on the flower buds because they taste like sweet little liquorice candies.

Redwood/Douglas Fir tips - in the springtime you will begin to notice that the tips of redwoods and doug fir turning bright green. This is the new growth of the plant and these soft tips are in fact edible! They are packed with vitamin C but are slightly astringent and so I prefer to let a couple bundles of them steep in hot water for a tasty tea.

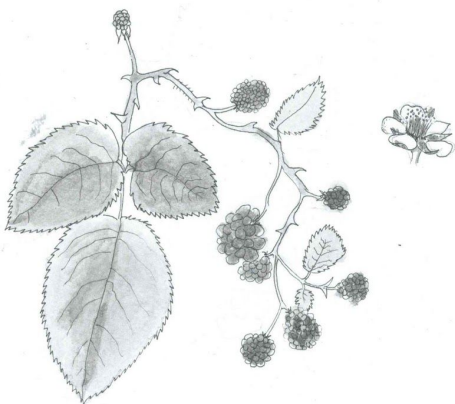
Huckleberries - a delectable summertime treat if you are able to stumble upon a producing huckleberry bush in the summertime. They look - and taste - like miniature blueberries!

Wild Radish - add these to your foraged salad mentioned previously for a spicy kick. All parts of this plant are edible but I prefer to eat the flowers (you can just pop them whole in your mouth) and the seed pods (they actually taste like tiny crunchy radishes - don't eat too many, they'll give you a tummy ache!).



Wild Mustard - another spicy treat to be enjoyed on its own or in a salad. Like rattlesnake grass, they are invasive, so harvest as much as you'd like!

Dandelion - this is an easy-to-find plant that is probably growing in your backyard or neighborhood. They are packed with vitamin C and can be prepared several different ways - the roots can be marinated and fried while the leaves can be chopped up and used as salad greens.



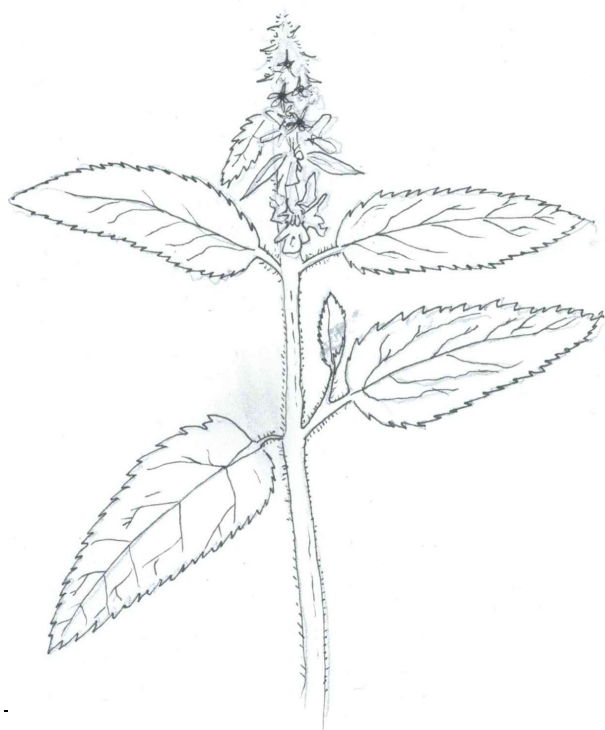
Blackberry - there are two types of blackberry in Santa Cruz - both are edible but only one is native. Of course, you can buy these at any store or farmers market, but there is a sense of joy in finding a patch while on a walk and munching away. Pro tip, there are some growing plentifully during late spring and

summer down by Neary Lagoon as well as Lighthouse Field on Westcliff.

SMELL

As humans, we are able to distinguish around ten thousand different smells. Our sense of smell is our link to the chemical makeup of the environment around us. A smell binds to olfactory receptors in the lining of our noses, which, in turn, sends a signal through the olfactory nerve to the limbic system - the network that is connected to our memories and emotions¹.

How can we begin to build an olfactory landscape of a place? Perhaps we can start by thinking about some of the more dominant smells in the natural places that we love to visit. For example, there are several odors that paint a picture of "home" for me when I think about the place I grew up: the salty smell of the ocean, clean sheets mingling with the smell of fresh cut grass drifting through the window of my childhood bedroom, smoke in the air from numerous summer fires, the strong scent of eucalyptus oil in the grove I still take walks through to this day.



This is Hedge Nettle (*Stachys bullata*), a plant that has - in my opinion - one of the most interesting smells in the redwood canopy. Its leaves are soft and velvety and the entire plant is covered in tiny hairs. It is a native perennial herb in the Lamiaceae (mint) family with small purple flowers. It doesn't sting or form a "hedge" - unlike its name! To me it smells like a cross between mint and a tropical fruit. I like to make tea that can help with stomach aches by steeping the leaves in hot water.

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<https://www.thenatureofcities.com/2016/05/29/scentimental-associations-with-nature-odor-associative-learning-and-biophilic-design/>

Nature Journaling Prompts - Sense of Smell

What are some of your favorite smells in nature?

Which smell triggers a particular memory for you about a place that you have visited in nature.

Choose an animal that you have seen in nature. How might this creature smell differently than us? Do you think that they smell things the way we do with our nose, or with another organ (ie how snakes "smell" with their tongue). Do they use certain smells to their advantage (e.g. warning predators or attracting potential mates)? How might this creature's sense of smell affect the way they interact with the world?

Resources

Braiding Sweetgrass by Robin Wall Kimmerer

Field Guide to Plants of UC Santa Cruz: Selected Trees, Shrubs, Herbs, and Ferns

Coyote's Guide to Connecting With Nature by Jon Young

The Forest Unseen: A Year's Watch in Nature by David George Haskell

Last Child in the Woods by Richard Louv

Forest Bathing by Dr. Quin Li

John Muir Laws

Tending the Wild by M. Kat Anderson

Conflict Resolution for Holy Beings by Joy Harjo

Vandana Shiva - all works,

<https://www.yesmagazine.org/issues/what-would-nature-do/vandana-shiva-seed-saving-forest-biodiversity-20190503>

Mary Oliver - all poetry

Acknowledgements

First, thank YOU for taking the time to read through this guide! I hope you take something meaningful away from it, whatever that may be.

I'd like to thank everyone in the California Naturalist Program for 2019.

And a HUGE thank you the director of Kids in Nature, Kate Jaffe, for her endless support, wisdom, and Coyote mentorship that she has provided me with over the years.



