

Everything is One

Case Study: Berries

Overview

Going berry picking in spring and summer and eating handfuls of ripe berries is something that many of us love about living in British Columbia today. How many different types of berries can you name? For thousands of years, over 30 kinds of berries have been harvested by First Peoples from late spring to fall, depending on the location and type of berry. Salal, blueberries, huckleberries, thimbleberries, trailing blackberries, salmonberries, soapberries, cranberries, gooseberries, saskatoon berries and more! Berries are not only delicious, they're also nutritious, packed with vitamins and fibre. Some berries were eaten fresh, made into jams or syrups, or were dried into cakes, like fruit leather, to be able to store them and eat them later in the year. Tart berries were mixed with sweeter berries to make dried cakes or syrups. A favourite dessert is made by whipping crushed soapberries with water until it forms a thick, frothy, "ice cream" sweetened with sugar, fresh sweet berries, or roasted camas bulb. Soapberries are slightly bitter and contain saponins, the compound which makes them lather up like soap. Wet'suwet'en use them to treat high blood pressure, digestive disorders, skin imperfections and other ailments.

The leaves of some of these berry plants, such as salmonberry and blackberry, make a nice tea. Others, like red huckleberry, and soapberry have medicinal uses. Berries weren't just picked but they were actively managed to encourage bushes to grow better and berries to be bigger and juicier. The soil around berry bushes was fertilized with kelp, crushed shells, wood ash, and other materials. The Gitksan and Wet'suwet'en of Northwestern British Columbia encouraged the growth of black huckleberry by burning certain areas of their territory. People knew that they weren't the only ones to enjoy the berries, and that bears, birds, and many other animals relied on them as a food source. Harvesting was done by hand or by gently shaking a plant over a basket, leaving many berries behind to share with other animals. Women were the traditional berry pickers and they carefully monitored the health of the plants in certain areas. If they weren't producing enough, the plants were left alone until they recovered. Berry plants were also transplanted as cuttings to desired sites.

Invasive Species Impacts

Invasive species can crowd out native berry plants and/or make it difficult to access harvesting sites due to their prickles or toxins. Himalayan blackberry can form dense, thorny thickets. Although their berries are appreciated, they are difficult to harvest due to their spines, and they crowd out other native plants and don't allow any undergrowth. Giant hogweed, knapweeds,

and Leafy spurge are all toxic plants that can irritate or burn the skin. Berry bushes and shrubs that favour sites near wetlands can be crowded out by purple loosestrife. Originally from southeast Asia, Spotted wing drosophila (*Drosophila suzukii*) is becoming a major pest of fruit crops, including blueberries, raspberries and blackberries. Unlike other fruit flies that eat rotting fruit, Spotted wing drosophila larvae infest and devour fruit during the early ripening stage.

Story of the Salmonberry Bird and Raven

Swainson's thrush, called *xwexwelesh* in Straits Salish, is widely known up and down the coast as the "Salmonberry Bird". It is said that the singing of the Salmonberry Bird makes the salmonberries ripen. The song, in rising flute-like tones, if translated, names the different colours of salmonberries and encourages them all to ripen: The little bird is singing, "nenel'q'xelfqw ('little black/dark red-headed ones')! nenel'pq'iqw ('little white-headed ones')! nenel'kwemíqw ('little red-headed ones')! nenel'pxwíqw ('little blond/golden-headed ones')! *xwexwelexwelexwelexwesh!* ('ripen, ripen, ripen, ripen!')."

WSÁNEC' elders Violet Williams and Elsie Claxton told a story about *xwexwelesh* and Raven, as recorded by Nancy Turner.

Swainson's Thrush invited Raven to her house for a meal. She told her kids to take their baskets out to pick berries. She started singing her song. In her song, she nicknames each of four colours of salmonberries and then sings their common names. As she sang, her children's baskets filled up. Afterwards, Raven said, "You come to my house." Swainson's Thrush did. Raven told his children to go out with their baskets. They did that for their dad. Raven sang and sang in his croaking voice, but the baskets never got full.

Sources

- » Turner, Nancy J. and Richard Hebda. (2012). *Saanich Ethnobotany: Culturally Important Plants of the WSÁNEC' People*. Royal B.C. Museum, Victoria.
- » Ecoforestry Institute Society, <https://www.ecoforestry.ca/plant-of-the-month-march>

Listen to the song of the Swainson's thrush

https://www.allaboutbirds.org/guide/Swainsons_Thrush/sounds#

Salmonberry and Swainson's Thrush Photographs



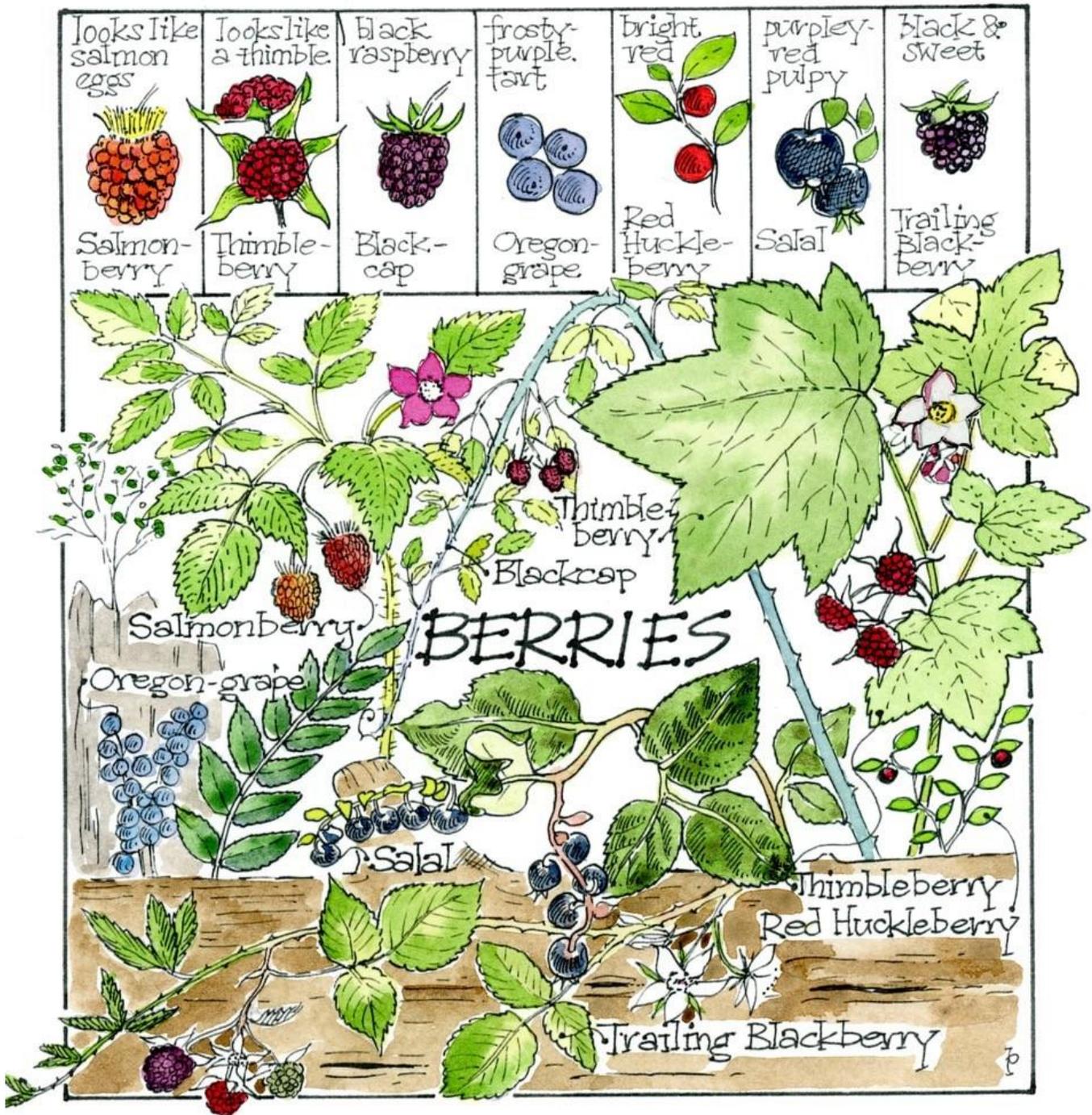
Photo credit: Richard Droker, wanderflechten@Flickr



Photo Credit: VJAnderson, CC BY-SA 4.0 <<https://creativecommons.org/licenses/by-sa/4.0/>>, via Wikimedia Commons

Native Berry Diversity in British Columbia

Drawing by Briony Penn, from A Year on the Wild Side, Touchwood Editions, 2019.



Traditional Berry Management

By Cyril Carpenter (Heiltsuk Nation elder) as told to Nancy Turner, In: Staying the Course, Staying Alive- Coastal First Nations Fundamental Truths: Biodiversity, Stewardship and Sustainability. 2009. Frank Brown and Y. Kathy Brown (Compilers). Biodiversity BC. Victoria, BC. 82 pp.

http://www.biodiversitybc.org/assets/Default/BBC_Staying_the_Course_Web.pdf

Cyril also told me, as we sat together [in wheelhouse, en route to Koeye], about traditional Heiltsuk “berry gardens.” When he was about 10 years old, his grandmother, Bessie Brown, pointed out to him a wide, bushy ledge beside a waterfall, at Roscoe Inlet in Heiltsuk territory. This was above the village [camp?] site. She told Cyril that this was the site of a productive berry garden. She said that people often located such berry gardens beside waterfalls, above a village or campsite, because mists around the waterfall kept the berry bushes moist, even in the summertime. The gardens were also situated where they were protected against the extreme prevailing winds. Up on the ledges, they were exposed to periods of warm sunshine, and this was important for ripening the berries.

Long ago, Bessie Brown said, the hunters and fishers would keep all the remains from cleaning and dressing their salmon, as well as from deer, mink, otter, wolf, and mountain-goat. They would dig holes in the ground around the berry bushes and bury these remains there. People also scattered the ashes from their fireplaces around the berry bushes, as well as clamshells, which helped to neutralize the acidic soils. This is what made the berries grow so well. They also used to transplant whole berry bushes to these special sites.

Cyril confirmed that the blueberries and huckleberries from these sites were healthier, bigger and tastier than any other berries; he said you could harvest them from the branches in handfuls. Later, Cyril noted, the people also used to fertilize their vegetable gardens, orchards and domesticated berry bushes around their houses using the same methods and nurturing materials, as well as adding seaweed, usually in the fall, just before winter set in and after people had processed the fall runs of salmon. Cyril demonstrated the success of these practices himself, with two cherry trees growing beside their house in Bella Bella. One, he fertilized with ashes and fish remains, and it has grown rapidly. The other, left alone, has grown far less and produces less fruit. We have a sense of place, of belonging, of connection, of value. With this we developed the responsibility to maintain the balance of which we are a part.

Additional Examples (Recommended for older students)

- » **Thriving Together: Salmon, Berries, and People**, by ‘Cúagilákv (Jess Housty) Hakai Magazine, April 27, 2021. The salmonberry plant has nourished and healed Indigenous communities of the Pacific Northwest coast for countless generations, but its significance goes far beyond its value as food.
 - Article and photos at: <https://www.hakaimagazine.com/features/thriving-together-salmon-berries-and-people/>

- Listen to the article (13:39) at https://www.podbean.com/media/share/pb-wqi8h-10191b8?utm_campaign=w_share_ep&utm_medium=dlink&utm_source=w_share
- » **Rotational Berry Picking**, By Hilistis, Pauline Waterfall. In: Staying the Course, Staying Alive- Coastal First Nations Fundamental Truths: Biodiversity, Stewardship and Sustainability. 2009. Frank Brown and Y. Kathy Brown (Compilers). Biodiversity BC. Victoria, BC. 82 pp.
http://www.biodiversitybc.org/assets/Default/BBC_Staying_the_Course_Web.pdf
 - Our people traditionally practised rotating berry crops, much like agricultural practices. Again, this meant that knowledgeable women, who were the traditional berry pickers, carefully monitored the state of health of crops in specific areas. If environmental and other conditions resulted in a low berry crop, then it was left to be replenished for as long as needed. There was also a practice of transplanting berry plant cuttings from one area to another. Ocean Falls was the most productive berry picking area, and our grannies used to row there each summer to pick and preserve berries in the traditional way—by sun drying berry cakes, much like the fruit leather that is now sold in grocery stores.
- » **Controlled burns to sustain forests and berries**. From: Chapter 2 – Transforming Teacher Thinking about Indigenous Science through Cultural Experiences by Nan Kendy, in Knowing Home: Braiding Indigenous Science with Western Science, Book 2, Edited by Gloria Snively and Wanosts'a7 Lorna Williams, UVic 2018. <https://ecampusontario.pressbooks.pub/knowinghome2>

Mel Basil of Gitxsan and Witsuwit'en heritage explained the concept of controlled burns as a means of sustaining the forests and berries. Traditionally, Witsuwit'en women maintained most berry patches through the use of fire to control brush and increase nutrients in the soil. Hot, quick fires stimulated growth and increased the production of larger berries (Morin, 2016). Mel shared a story that demonstrated how the once abundant and well-tended huckleberry bushes may have contributed to the health of the woodpecker population, which kept the pine beetle population in check. He explained how his people traditionally prescribed burns of the forest to bring health and abundance to the berry patches. The people maintained the growth of the huckleberries; the propagating mature woodpeckers fed the desired huckleberries to their young while they in turn feasted on the pine beetles. This cycle naturally produced more mature woodpeckers and fewer beetles until the settler community intervened in that cycle and made burning illegal. Eventually there were fewer huckleberries which led to fewer mature woodpeckers, who we were told, were the greatest natural predator to the pine beetle.