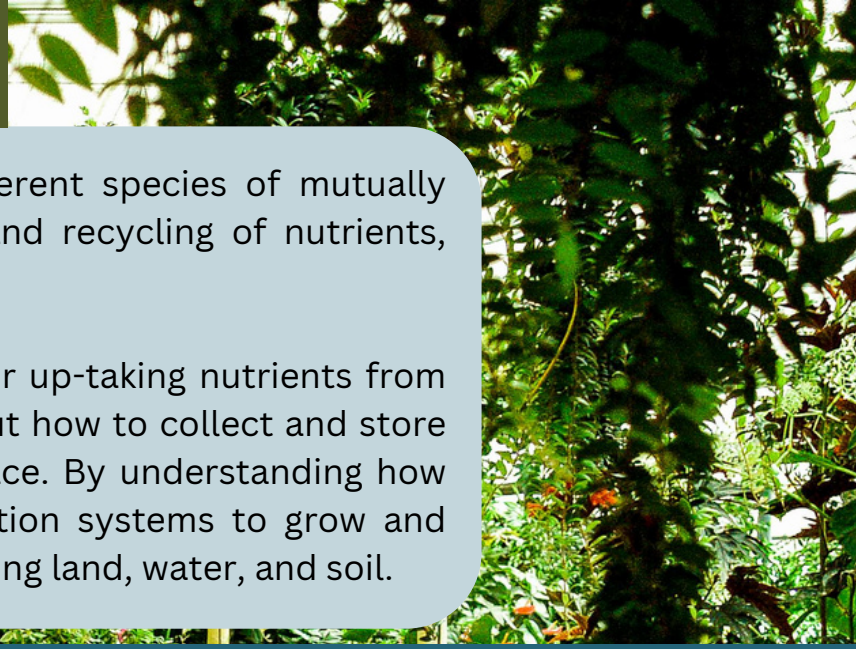
What is a Food Forest?



A forest garden mimics a forest ecosystem by integrating many different species of mutually beneficial plants and animals together for optimal food production and recycling of nutrients, water, and resources.

Each plant plays a particular ecosystem role such as providing shade or up-taking nutrients from the soil that benefits the plants around it. Nature has already figured out how to collect and store rainwater, prevent erosion, recycle nutrients, and optimize growing space. By understanding how forests grow and sustain themselves, we can mimic our food production systems to grow and sustain themselves with minimal to no human intervention while conserving land, water, and soil.

Why a Food Forest?

- Powered by sunlight, plants use carbon dioxide and water to produce sugars sent down to roots in sap. A third or more of this sugar is traded with soil life for nutrients.
- Fungi, bacteria, and invertebrates work in the soil making nutrients available for other organisms and plants.
- Above ground birds and other animals support diverse plants and soil life to help gather and distribute nutrients for more plant growth.
    - Food forests are more resilient and productive because of their diversity. If one crop has a bad year to weather, another will have thrived. If a pest or disease becomes too prevalent, another organism will begin to feed on it, controlling its numbers and turning it into soil to feed future plants.

The soil feeds the forest & the forest feeds the soil

Soil-life networks in old-growth forests have been shown to extend miles from a given tree, to the benefit of diverse plants & many thousands of soil species, supporting all the life above.

Layers of a Food Forest

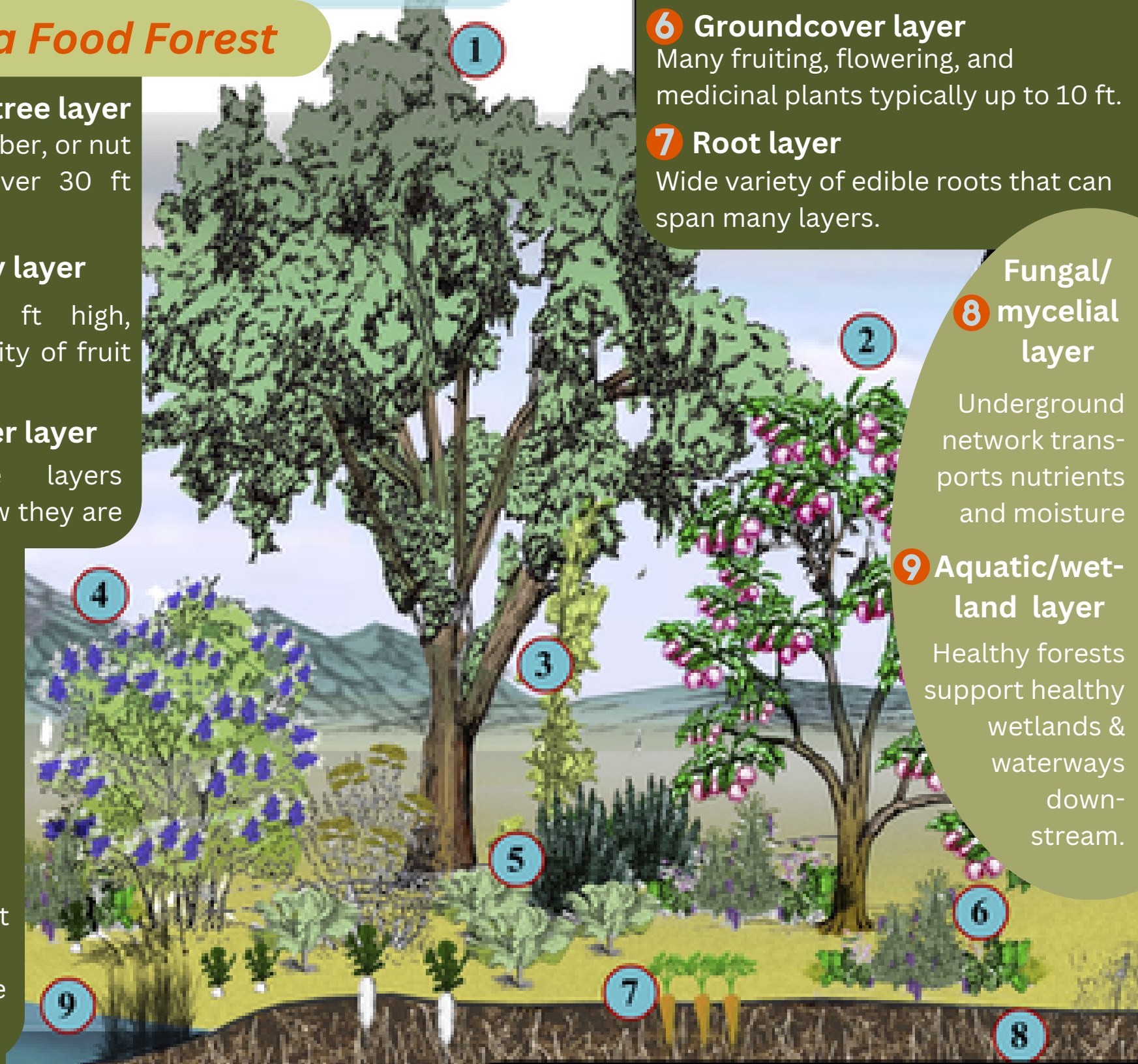
1 Canopy/tall tree layer
Large fruiting, timber, or nut trees typically over 30 ft high.

2 Understory layer
Typically 10-30 ft high, including a majority of fruit trees.

3 Vine/climber layer
Spans multiple layers depending on how they are trained or climb.

4 Shrub layer
Many fruiting, flowering, and medicinal plants typically up to 10 ft high.

5 Herbaceous layer
These plants don't produce woody stems and can die back every year.



6 Groundcover layer
Many fruiting, flowering, and medicinal plants typically up to 10 ft.

7 Root layer
Wide variety of edible roots that can span many layers.

8 Fungal/mycelial layer
Underground network transports nutrients and moisture

9 Aquatic/wetland layer
Healthy forests support healthy wetlands & waterways downstream.

Why a Food Forest?

Live & Learn from the Indigenous Land

Trees slow, spread, and sink precipitation better than any other plant or structure. By doing so, forests moderate floods and droughts alike.

Forests retain the winter rains in plants and the soil. During the dry season, most of that water, along with oxygen, is released as **evaop-transpiration** through their leaves. This process cools and humidifies a forest on hot days.

Established perennial plants can thrive without irrigation, and annual plants can go months without rain on our *hugelkulture* (woody debris filled) raised beds. These meds mimic the nurse logs of our native forests, which support more life than anywhere on Earth with no irrigation or fertilization.

Watershed & Water Cycle Restoration & Resilience

- Forests have been a food source for people as long as we have existed. The Tolowa People, being the “First People” of this land, knew intimately the rhythms of nature and the value of the gifts each season provides.
- The forest was the Tolowa grocery store, general store, pharmacy, and spiritual supplies through plants they learned to gather, with no need for today’s agricultural practices.

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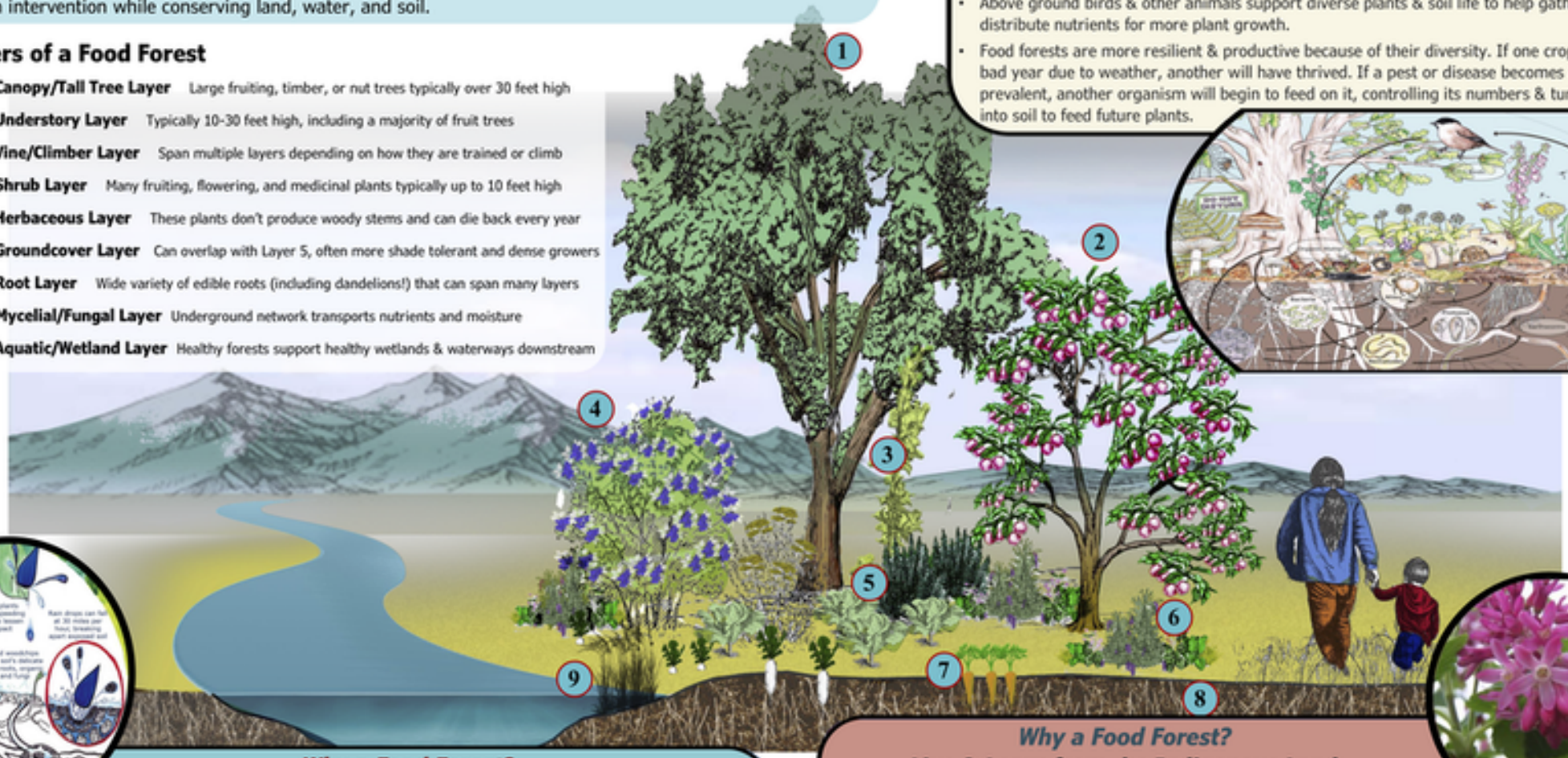
4. **Shrub Layer** Many fruiting, flowering, and medicinal plants typically up to 10 feet high
5. **Herbaceous Layer** These plants don't produce woody stems and can die back every year
6. **Groundcover Layer** Can overlap with Layer 5, often more shade tolerant and dense growers
7. **Root Layer** Wide variety of edible roots (including dandelions!) that can span many layers
8. **Mycelial/Fungal Layer** Underground network transports nutrients and moisture
9. **Aquatic/Wetland Layer** Healthy forests support healthy wetlands & waterways downstream



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Dee-ni' Xuu-shi': **Daa-me'**
(English Name: Red Flowering Currant)

Daa-me' is a deciduous shrub (Layer 4) with red or pink flowers emerging in the early spring at the same time as the leaves.

Uses: Berries are edible. When the flowers bloom this indicates that it is time to gather seaweed and that the eels are running.