

Arbutus aka Pacific Madrone Tree (*Arbutus menziesii*)



Sources: <http://blogs.ubc.ca/lucia316/2015/10/08/4-1-arbutus-menziesii-n/> ; <http://blogs.ubc.ca/lucia316/2015/10/08/4-1-arbutus-menziesii-n/> ; http://www.nwplants.com/business/catalog/arb_men.html

Arbutus is the only native broad-leaved tree in Canada that retains its leaves year round. What makes Arbutus special is that they have a very specific environment in which they can grow. Within that environment, they are extremely hardy and are great at resisting droughts, extreme winds, poor soil nutrients, and even wildfires. These trees are found on open rocky outcrops near the ocean, keeping within about 8km of the shorelines and occasionally in deeper soils in forest openings within the shoreline distance. This is the case if they are left alone in nature. However, with urban development, new diseases and pathogens, soil and root disturbances, there has been a decline in arbutus population across Vancouver Island. It is not rare for an Arbutus tree to live up to 400 years.

Culturally, Arbutus has significant values to many First Nations on the coast. It has been noted that the Saanich used Arbutus bark and leaves for medicinal purposes. Arbutus has never been harvested commercially for timber; the wood is gnarly and knotty for use.

Arbutus is host to many bird and insect species. Most importantly, the honey-smelling flowers attract pollinators such as bees. Pollinator bee populations have been dramatically decreasing in recent years, struggling with habitat destruction, urbanization, agricultural pesticide use and the strange disease called Colony Collapse Disorder which can suddenly and mysteriously wipe out entire hives/populations within days. Bees play an over-looked but extremely important role not only in nature but for humans. Without bees to pollinate our crops, there is potential for massive crop failure and inflated food prices. Providing our little bee helpers pollen from native sources such as Arbutus helps sustain bee populations and provide food security for people.

Arbutus provides sustenance for birds as well. The migratory Rufous hummingbird - who travels from the Mexican coast to Vancouver Island each year, drinks the nectar from the Arbutus flowers. This makes the Arbutus an important player for this hummingbird species; without the Arbutus rufous hummingbird populations could decline. Other birds such as waxwings, thrushes, band-tailed pigeons, woodpeckers and robins eat the berries from the Arbutus tree. Swallows use Arbutus as a nesting site.

Tubaria punicea (Christmas naucoria) is a rare fungus that only grows from the hollowed or rotting centres of ancient Arbutus trees. Allowing Arbutus to reach old age helps sustain the great biodiversity we have today.

Other anthropomorphic benefits of Arbutus include the fact that it is a natural deer repellent! The tips of young leaf buds secrete a sugary liquid which is tasty for ants and insects, but is unappetizing for deer.

Arbutus also plays a role in erosion control by slowing down the process of rain reaching the ground and subsequently taking water up by its roots. Without this assistance from the Arbutus, over time the soils in the area will be washed away leaving nothing for other trees and plants to grow upon, which leads to potential hazards such as flooding. This is a common occurrence and problem with clear-cutting forestry practices; nothing is left to defend the ground layer from natural weathering to retain soils and subsequently recover from the clear-cut. This problem also extends to stream systems as the extra water runoff from weather events enters the waterways with extra sediments, dramatically changing the profile of the stream and disrupting fish habitats. As Arbutus are found on rocky sites with thin soils, retaining as much soil as possible is of utmost importance for other species to grow and not become sediment in a clogged water system.

Once cut down or pruned, it is quite difficult for Arbutus to come back. Open wounds are an entry way for disease and pathogens to enter the tree and hinder regrowth. It is widely known that propagating and growing Arbutus is extremely difficult – they typically don't survive past one or two years after propagation. Arbutus has very sensitive root systems which are susceptible to root rot in its early life or any time the underground system is disturbed.

To help Arbutus thrive it is actually important to leave them alone - let nature do its thing! Avoid disturbing the root system, attempting to irrigate or prune them.

Arbutus trees are in fact protected by the city of Victoria and Saanich. The city of Victoria; Tree Preservation Bylaw 05-106 states that Arbutus is not to be removed without special permit, which typically is only issued for danger trees. The Saanich Tree Preservation Bylaw No. 9272 states similar conditions. Even with the permit of removing the tree, it is required that two will be planted in its place.

Lastly, the protection of Arbutus is beneficial to the property owner because it actually raises the value of the property!

We hope you enjoyed learning about all the ways that Arbutus influence and support our natural systems.

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