

Salmonberry Monitoring Directions

Monitoring Climate Change

Winter and spring temperatures have been warming up over the last century in Canada. There are many questions about how climate change will affect coastal ecosystems and economically important resources over the long term. Monitoring an indicator of biological responses to climate change will contribute to our understanding and help us prepare to live with altered future conditions.

Why Salmonberry?

Date of the first salmonberry blooms depends on winter temperatures. By tracking the date of the first blooms each year, we can see how plants, and the rest of the ecosystem, respond to climate change. The timing of salmonberry flowering is linked to the timing of other natural phenomena, for example, the return of the Rufous Hummingbird coincides with the availability of salmonberry flowers' nectar. Monitoring salmonberry has been a part of a long cultural tradition within Clayoquot Sound. The Nuu-chah-nulth used the ripening of salmonberry berries, "qawai", as an indicator of the return of adult sockeye salmon. Lots of salmonberries meant that lots of sockeye would be available.

How to Participate

Follow these steps:

- 1) Identify salmonberry plants that are easy to observe – in a residential yard, near a school, or along a trail. If possible, choose plants in a relatively flat area, away from building walls or other heat sources.
- 2) Put numbered labels or tags on your plants.
- 3) Draw a rough map of these locations – ideally you will monitor the same plants in future years, and allow CBT staff/volunteers to GPS each location.
- 4) Fill out a data form for each tagged plant, and, if you are monitoring with a group, list the tagged plants on a wallchart, and post it where the whole school class, office staff, or park visitors, can see it.
- 5) Record environmental details for the tagged plants: Is the plant in a flat area or on a slope? In open sun, partial sun, or full shade?
- 6) Keep a sharp eye on your tagged plants as spring arrives and flower buds swell.
- 7) Record the date of the first bloom (the first flower buds open). If you wish, you can also record the dates of mid-bloom (50% of the flower buds are open), leafing (the first leaves emerge and unfurl completely) and the first ripe berry.
- 8) Note and record the weather during the week before the first bloom appeared.
- 9) Submit your data to the Clayoquot Biosphere Trust office in Tofino. CBT will collect the data in a database so that trends can be examined in future years.

More Resources

If you're a teacher, check out the "Plantwatch" teacher guide that provides curriculum applications in science, mathematics, and social studies. It is available on the internet at <http://plantwatch.fanweb.ca/educational-tools/teachers-guide>

If you are curious about the seasonal timing of other natural phenomena, check out <http://www.naturewatch.ca/english/plantwatch/> and <http://www.naturescalendar.org.uk>