

Throughout the progression of our trip on Mt. Baker, several of our team members from the Girls On Ice 2009 group participated in carrying out a few plant/vegetation surveys. The girls that participated in this particular science project are as follows:

Erin Petit, Heidy Henriquez, Bethany Monsees, Marie Seal, Cece Mortenson, Angelica Ferreira, and Abrianna Peto.

One of the observations that we made was that the variation and numbers of plants decreased with each change in elevation. We also noticed that trees ceased to grow higher up on the mountain due to several key factors. Each plant has a different way of adapting, and some are completely incapable of living up towards the peak of the mountain. Some of the factors that cause adaptations in the plants are wind, rain, and colder climates. These factors are what determine which plants grow higher up on the mountains and which plants grow at lower elevations.

For each vegetation survey we looked at a square that was about a meter wide and a meter long. In each of these squares we observed the plants, made drawings of the plants, and looked up more information on the plants in a book that we had brought up for the sake of science and research. This book is Plants of the Pacific Northwest Coast Washington, Oregon, British Columbia, & Alaska by Pojar and Mackinnon.

All of the plants that we studied are listed below and we got all of the information on them from Plants of the Pacific Northwest Coast.

Yellow Mountain Heather: low, much-branched, stems are erect, 10-40 cm tall, young stems, glandular-hairy. Found in terminal clusters and they have round capsules. Sometimes found in snowy areas, forests, and rocky sites. They have a yellowish-green, unshaped, 8 mm long flower.

Tolmie's Saxifrage: low, mat-forming perennial with numerous sterile, leafy shoots. Can get 2-8 cm long stems with stalked glands. They are watered by melted snow. Are typically found in higher elevations. White to yellowish flowers with sepals of a purplish color.

Spikenard Sedge: dwarf, densely tufted, stems are wiry, and it gets 2-15 cm tall. It has very narrow, hair-like leaves. And has 1-2 leaves per stem. It is grass-like and has rough ends.

Partridge Foot: It is a prostrate, mat-forming, evergreen semi-shrub. It has numerous leaves that are mostly crowded in thick basal tufts. The flowers are small with petals about 3 mm long. They are white and are found in dense terminal clusters. They can be found in most alpine areas.

Arctic Lupine- It is a perennial bushy herb with several erect stems. The leaves are mostly arising from near the base with long stalks. There are 6-8 leaflets that can grow up to 5 cm long. The flowers are bluish and pea-like and can grow up to 2 cm long.

Mountain Hemlock- It is usually a sub alpine plant that grows up to 40 m tall. It's branches droop or spread but tend to have an upward sweep at the tips. Its leaves are similar to those of the western hemlock, but the needles are equal in length, a bluish-green, and grow to be 1-3 cm long.

Pincushion Orange Lichen- They are a small, loosely appressed leaf lichen, forming small, loose, disc-shaped "pincushions"; its lobes are very narrow and they are either a pale orange or bright orange color.

Cremholts- A cremholt is a tree that has rooted in an elevation higher than its species is used to. In the higher elevations, instead of growing up, it grows outward like a bush due to adaptations in order to avoid being blown off on top by the wind.

There were two days that we did the research on all of these plants. One of these was on Tuesday July 3, 2009 at our base camp on the Metcalf Moraine and Friday July 7, 2009 as we hiked back down Mt. Baker towards the trailhead.



