

Ecology of the Beech Forest and Yubiso Willow

Beech trees in the Kanto region typically grow at altitudes of at least 1,000 meters, and beech is generally considered a mountainous species. However, in Minakami's cold climate, they can be found at altitudes as low as 600 meters. Beeches are well-adapted to the heavy snowfall caused by the mountains' cold, moist environment, and they are a fundamental part of the local ecology whose lifecycles directly affect the animals that live in the forest. Beeches on Mt. Tanigawadake first produce nuts sometime between their sixtieth and seventieth year, and every five to seven years afterward they bear an especially bountiful crop of nuts (called "mast"). Many local species are dependent on the food source provided by the beech nuts.

A beech tree typically lives for approximately 200 years, but even after it falls and begins to rot, it continues to provide for the surrounding ecosystem. The light through the new gap in the canopy nurtures saplings to replace the fallen tree, and the decaying beech feeds mushrooms, which in turn are eaten by animals like mice and rabbits that make their homes in the rotting trunks.

In 1972, a new species of willow was discovered growing lower down the mountain alongside the Yubiso River, a tributary of the Tone River that originates north of Mt. Tanigawadake. This species, named *Salix hukaoana*, is found only in the northeast region of Honshu. The *S. hukaoana* willow has been determined to live only in the floodplains of relatively shallow mountain rivers on the southeastern side of the Tanigawa Mountain Range.