

Explore Fujisato-1

Where the spirit of the forest dwells

【Dakedai Nature Education Forest】

【Tanashiro Wetland】

Difficulty: **1** (Easy)

Terrain: Sneakers are OK in Sunny Weather

Recommended for beginners. A roughly 10-minute drive apart, Tanashiro Wetland and Dakedai Nature Education Forest contain all the elements that make Shirakami Sanchi unique.



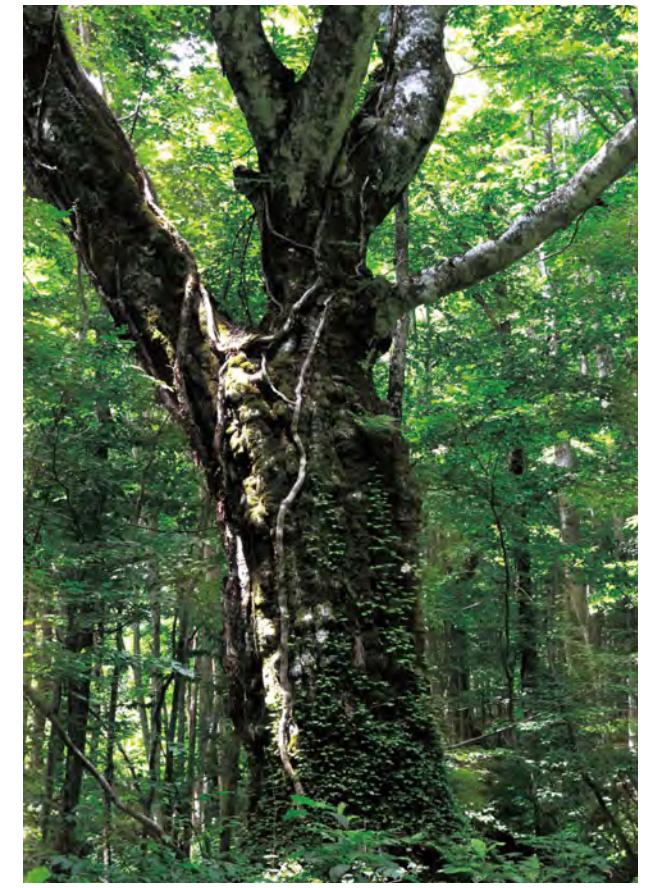
Dakedai Nature Education Forest

The Dakedai Nature Education Forest was established in 1992 as a place for visitors to learn about how humans have changed the forest and how beech forests develop more broadly. The trail is flat and wide, and the entire course can be completed in about 90 minutes. The trailhead is about an hour's drive from central Fujisato, and much of the trail is wheelchair accessible.

Although the forest is quiet and peaceful, the stillness hides many stories of how humans have changed the forest. Many of the trees in the area just north of the parking lot were cut down during World War II. The area was then planted with Japanese cedar after the war. While part of the cedar plantation remains, much of the beech forest has recovered. Beyond the cedars, the original beech forest still grows and survives, free from human intervention. The mulchy soil of dead beech leaves traps water, supporting not only the trees but other plants and animals as well. Given enough time, the recovered, secondary-growth forest will look the same as the original, primary-growth forest.



You can leave your hiking boots at home when you visit Dakedai Nature Education Forest.



The massive 400-Year-Old Beech can be reached via the wheelchair-friendly path.

The Elder Beeches of Dakedai



The Mononoke Beech. Located just up the road from the parking lot, this beech is thought to be over 300 years old.

Most of the beech trees in Dakedai are young trees. On average, beeches live for about 250 years, but some can live for much longer in ideal conditions. Dakedai is home to three particularly large and ancient beeches. The largest of these is the 400-Year-Old Beech in the center of Dakedai. Next oldest is the Mononoke Beech, estimated to be 300 years old. The third and final tree is the large beech near the entrance to Dakedai that is thought to be over 200 years old. Most of the beeches in Dakedai are likely related to these three elder trees, especially in the secondary-growth forest that sprouted after World War II. As beeches age, their bark ripples into sinewy lines, and they develop large bumps called "burls."

How Did the 400-Year-Old Beech Live So Long?

The 400-year-old beech tree that stands in the middle of the Dakedai Nature Education Forest is over 25 meters tall—the largest beech in the immediate area. Although no one knows exactly why it has managed to survive for centuries, its longevity is likely thanks to a combination of favorable factors: the tree is protected from strong winds by rocks and other trees, it has had relatively few competitors for space, and the soil holds plenty of water. Only in a primary-growth forest like Shirakami Sanchi can beeches grow this large, and the 400-Year-Old Beech has become a symbol for the entire area.

As beeches age, their heartwood may rot, weakening the structure of the tree. The 400-Year-Old Beech is no exception; a large limb fell off the tree during a storm in 2013. Even missing a limb, this beech continues to grow and produces beechnuts every two or three years.

The Three Forests of Dakedai

Secondary-Growth Forest

Many of the trees in the area just north of the parking lot were cut down during World War II. New beeches sprouted, and the forest has regrown, but few of the trees in this area are more than 60 or 70 years old.

Cedar Plantation

Farther north, the area was cleared for fuel after the war and then replanted with Japanese cedars. The coniferous trees are not suited to the soil of Dakedai, and they grow slowly. In some places, after the cedars were harvested, local groups planted more beeches to restore the forest to its original appearance.

Primary-Growth Forest

Beyond the cedar plantation is the primary-growth beech forest that extends all the way into the Shirakami Sanchi protected area. This forest developed naturally and has never been managed by humans.

Sprouted from Stone

These beeches have slowly embraced the boulders on which they sprouted and grew.



Dakedai is littered with large boulders. Researchers think that they tumbled down the eastern slope of Mt. Fujisato Komagatake during a landslide thousands of years ago, when the volcano was still active. The boulders were slowly incorporated into the forest as lichen and moss grew upon them, creating enough detritus for fallen beech nuts to sprout and grow. These saplings grew slowly down and around the stones until their roots reached the nutrient-rich soil below. As they grew larger, their roots gradually swallowed the boulders whole. Researchers believe that because these trees grew much more slowly in the time before their roots reached the ground, they are much stronger and harder than the faster-growing trees around them.

Return to the stillness.

A Natural, Practical, and Accessible Forest Path

The path to the 400-Year-Old Beech is completely accessible by wheelchair. The path, which stretches for about three quarters of a kilometer, is laid with tightly compacted woodchips, creating a level surface that prevents wheelchairs from getting stuck or dirty. Unlike paths made from asphalt or concrete, this path does no harm to the forest and is completely biodegradable. In fact, new woodchips must be added every five to seven years. This regular maintenance keeps the forest accessible to everyone while still protecting the natural environment.



Please protect the plants and animals by staying on the path.

Beneath the Beeches

The beeches in Shirakami Sanchi are Siebold's beeches (*Fagus crenata*), which are called *buna* in Japanese. Their wide, dense canopy creates a mild environment that is ideal for the lichens and the mosses that grow on rocks and trees in Dakedai. The leaves block the sunlight, keeping the temperature low. After the leaves fall, they decompose and create rich soil that holds water for the plants and animals of the forest. Thanks to the beech trees, every fallen tree and boulder in Shirakami Sanchi contains a tiny universe of lichen, moss, and fungus growing in harmony.



The beech trees create an environment full of eye-catching mosses, lichens, and fungi.

A Forest-Friendly Toilet

The restrooms near the parking lot have been designed to minimize their impact on the forest. The wastewater is purified as part of a closed septic system and then reused. This protects the environment of Dakedai from unnatural changes in nutrients and microbes that occur when wastewater from toilets, farms, and other human activities is discharged into the environment without processing.



Wartime Tree Markings

During World War II, many of the beeches in Akita were cut down for use in the war effort. Beech wood is quite hard, and it was often used to make propellers for airplanes, such as the famous Mitsubishi A6M "Zero." To indicate which trees were to be cut down, tree trunks were marked with the character *yō*, short for *yōzai*, which means "materials." Some trees were marked with Chinese numerals instead, which indicated that they were to be pulped. The war ended before all the trees were harvested and the marked trees have continued growing here peacefully for the past 70 years.



Local Specialties for after the Hike



Stewed horsemeat with rice and sides (Resthouse Shirakami)



Lamb and watercress rice bowl (Mori no Eki)

After exploring the trails of Dakedai and Tanashiro, satisfy your appetite with one of Fujisato's regional specialties. Lamb and watercress served in a bowl over rice is a popular meal available at Mori no Eki, near the Shirakami Sanchi World Heritage Conservation Center in Fujisato. The dish uses fresh watercress, one of the area's main agricultural products, and lamb from the city's flock of Suffolk sheep. Another local delicacy—one eaten in Fujisato for hundreds of years—is horsemeat. The traditional preparation is to stew the meat and serve it with rice, miso soup, and various side dishes made from wild vegetables or locally produced pickles. Ramen made with horsemeat is a more recent popular dish. The ramen is on the menu at Mori no Eki and the stew at Resthouse Shirakami, which is near Subari Lake.

Horsemeat ramen (Mori no Eki)



Where to Learn More

The Shirakami Sanchi World Heritage Conservation Center is a great place to learn more about the mountains. The center has various exhibits that explore the nature and history of Shirakami. The Nature Advisors at the center will happily provide additional information in either English or Japanese. Keita Suganuma, one of the main Nature Advisors, says, "If there is anything you want to know or if you are not sure what to do, don't hesitate to ask!" Admission to the center is free.

Shirakami Sanchi World Heritage Conservation Center in Fujisato

63 Satoguri, Fujikoto, Fujisato-machi, Yamamoto-gun, Akita-ken
Telephone 0185-79-3005
Open: March through November: 9:00~17:00
December through February: 10:00~16:00
Closed: March through November: Tuesdays
December through February: Mondays and Tuesdays
(If one of the above days falls on a public holiday, the center will be closed on the following non-holiday) December 29 through January 3



Daira Gorge and Fujikoto River



The Daira Gorge is a deep ravine carved by the Fujikoto river over thousands of years. Its steep sides—more than 30 meters high in some places—are lined with beeches and other trees that change from cool green in the summer to brilliant yellow in the autumn. The waters of the Fujikoto River originate as snowmelt high up in the mountains, and the river's cold, clear current is home to sweetfish (*Plecoglossus altivelis*).

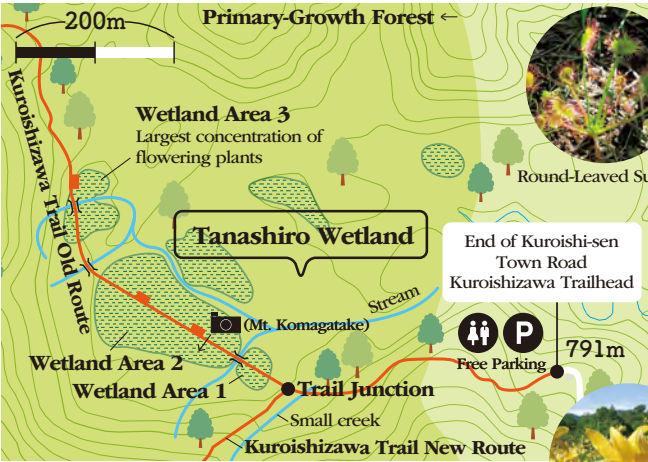
Train Tracks in the Wilderness

On the road to Dakedai, just across the Daira Bridge, a set of railroad tracks is visible through the trees. The tracks are the only visible remains of Daira Mine. Although mining in the mountains around Shirakami Sanchi began in the 1600s, the late 1800s ushered in a period of rapid industrialization. To meet the sudden demand for materials, mining and logging became major sources of income for rural villages. From the early 1930s, minecarts carried lumber and ore out of the mountains on these tracks. The mine closed in 1958 and the tracks have not been used since.



Tanashiro Wetland

About 10 minutes up the Kuroishizawa Trail on Mt. Fujisato Komagadake is the Tanashiro Wetland. The secluded highland marsh's name, "Tanashiro," means "rice paddy of the gods"—a name given to it by ancient communities that worshiped the mountain. The Tanashiro Wetland spans roughly 19 hectares, or about the size of 23 soccer pitches. Flowers bloom in the wetland throughout the year. In May and June, Asian skunk cabbages produce huge, white blossoms that—unlike the flowers of their American cousins—have a pleasant smell. From late June through July, the wetland is filled with Amur daylilies. Other commonly seen flowers are the round-leaved sundews, a type of carnivorous plant, and a type of skunk cabbage that melts through the snow in early spring with heat produced by its purple flower. In September and October, the beeches that surround Tanashiro turn the whole mountain into a blaze of yellow. The Nature Advisors recommend looking at the plants up close with a magnifying glass or a loupe.



Round-Leaved Sundew



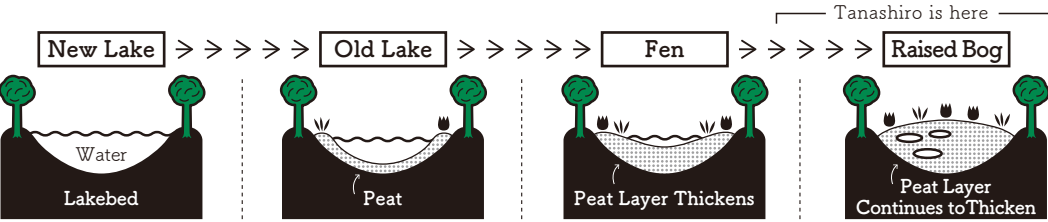
Amur Daylily

What Is Happening to Tanashiro?

To understand the future of The Tanashiro Wetland, you must first understand its past. The wetland began as a pond or a lake, but it gradually filled with dead leaves and plant debris. As this detritus accumulated on the lakebed, the microorganisms living there gradually died from lack of oxygen. Without the oxygen-breathing microorganisms to break down the organic material, the layer of plant matter grew thicker and denser, eventually becoming what is known as "peat." Sphagnum moss took root in the peat, contributing to the production of more peat as the moss reproduced and died. Each layer builds upon the previous one in a continuing cycle, slowly making the pond shallower. Through this process, Tanashiro has become a swampy, partially flooded area commonly called a "fen." However, Tanashiro is still slowly filling with peat, and will eventually

become a wet mound, called a "raised bog." Once the peat has formed a raised mound, trees will begin to colonize the drier areas. Over time, the Tanashiro Wetland will become dry land. Trees like Erman's birch (*Betula ermanii*) have already begun to grow within the wetland. Unfortunately, climate change seems to have drastically sped up the process. This is bad news for the ecosystems located downstream from the highland. Water that flows through the wetland absorbs nutrients that promote the growth of river plants and seaweed downstream. These plants become food for animals that live in and around the rivers, and they are eaten in turn by other animals and by people.

Please do not leave the boardwalks! By protecting the ecosystem of Tanashiro, we are helping to protect the whole of the watershed below.



Blooming Season	
(Dakedai Nature Education Forest)	(Tanashiro Wetland)
May Japanese Beech (blossoms and spring leaves) Spring Ephemerals Japanese Bigleaf Magnolia Japanese Horse Chestnut	May Asian Skunk Cabbage Marsh Marigold Skunk Cabbage
Early June Skeleton Flower Japanese False Solomon's Seal Wood Sorrel	June Buckbean Arctic Starflower Climbing Hydrangea
Late June Foamflower Climbing Hydrangea	Early July Amur Daylily <i>Eleocharis japonica</i> Asian Pogonia
July Mountain Hydrangea	Early August <i>Hosta sieboldii</i> var. <i>rectifolia</i>
August & September Fortune Saxifrage Japanese Monkshood	Early September Marsh Grass of Pampassus Clustered Gentian
Late October Japanese Beech (autumn colors)	Mid-October Local shrubs and bushes take on autumn colors
	Late October Japanese Beech (autumn colors)



Skeleton Flower

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Produced April 2019 by Fujisato Town Tourism Division
With help from the Shirakami Sanchi World Heritage Conservation Center (Fujisato) Management Council
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