Shiretoko World Natural Heritage Site Conservation Project Supported by Daikin Industries

FY2023 Activity Report

1. Project to Restore the Rich Diversity of the Shiretoko's Forests

The 100 Square-Meter Forest Movement Trust and Related Projects

The 100 Square-Meter Forest Movement Trust (organized by Shari Town) was created to purchase agricultural and forested land that was in danger of commercial and residential development and restore the native forests that once grew there. With the support of countless individuals, the movement began in 1977 when it completed the purchase of land. Since 1997, initiatives have been launched for restoring the forests and rich diversity of vegetation.

This project builds upon the nature regeneration efforts conducted in the Iwaobetsu River basin, which flows through the center of the area purchased by the 100 Square-Meter Forest Movement Trust (hereafter, referred to as the "Trust Lands"), during the first phase of support (2011-2015). The targeted area for restoration has also been expanded to include all of the Trust Lands. In the second phase of support (2016-2024), the project has been cultivating and planting seedlings of a variety of tree species native to Shiretoko.

Additionally, to prevent damage caused by the feeding of Yezo sika deer, a significant issue for restoration of the virgin forests, we have been repairing the existing deer fences and bark protection nets. Similarly, we are working to promote the reforestation of the areas where broadleaf bamboo has become overgrown from land development and to diversify the tree species in the Glehn's spruce plantation. Our aim is to restore the forests back to their original state prior to development.

Restoration of a Mixed Forest

As with the previous fiscal year, we continued to use heavy machinery to till the broadleaf bamboo and return topsoil (Photo 1-1). Once an area is overgrown with broadleaf bamboo, sunlight conditions underneath the broadleaf bamboo suffer and prevent other plants from growing. For this reason, efforts to completely uproot and degenerate the broadleaf bamboo have been underway to promote the regeneration of new trees. In 2023, the seventh year since this work began, we removed approximately 0.4 hectares of broadleaf bamboo from the Trust Lands. As in the previous year, we set aside areas in which the nutrient-rich topsoil was not returned in order to suppress the growth of bracken.

As part of the initiative to diversify tree species in the Glehn's spruce plantation, employee volunteers from Daikin transplanted medium-sized broadleaf tree seedlings in a forest clearing in September (Photo 1-2), and in February, they manually thinned the forest and created supports for tree planting (Photo 1-3).

In addition, these volunteers patrolled the deer fences established to protect forests and seedlings from the Yezo sika deer. When any damage caused by fallen trees was found, they repaired and worked to maintain the fences. In addition, with the cooperation of general volunteers, they repaired a collapsed post found in the deer fence from the previous winter (Photos 1-4).

Hosting of Employee Volunteers from Daikin Industries

In the fall of FY2023 (September), Shiretoko employee volunteers from Daikin Industries planted broadleaf tree seedlings in the cleared Glehn's spruce plantation. In the winter (February), employee volunteers thinned the Glehn's spruce forest and created supports for use in planting broadleaf tree seedlings the following year. To date, this project has hosted 23 volunteer events with a total of 227 Daikin employees participating.



Photo 1-1 Worksite of broadleaf bamboo being tilled with heavy machinery (September 25, 2023)



Photo 1-3 Thinning and construction of tree supports (February 4, 2024)



Photo 1-2 Transplanting of medium-sized broadleaf tree seedings (September 23, 2023)



Photo 1-4 Repair work on deer fence posts (August 26, 2023)

2. Project to Protect and Pass on the Value of Shiretoko as a World Heritage Site

Activities for Passing Shiretoko's Forests to Future Generations

This project supports activities for the local children to learn about nature in the hope of passing on the values and appeal of Shiretoko as a World Natural Heritage Site and fostering the human resources crucial to the conservation of nature at Shiretoko in the future.

In addition, we actively hold outreach classes and practical field learning events for Shari Town and vicinity students, ranging from elementary to high school, to promote understanding and publicize the 100 Square-Meter Forest Movement. To inform the general public about the activities and spirit of this movement, we also hold talks on the topic of forestation at the Shiretoko Nature Center.



"Observation and Learning of Living Things on the Chashikotsu Shores," organized by the Shiretoko Museum for third-year students at Shiretoko Utoro Elementary School



Instruction of children at Shiretoko KIDS in Rausu Town for putting on snowshoes



Second-year Shari High School students who planted trees (October 25, 2023)



Forest Creation Talk & Walk Event (August 14, 2023)



Practical training for students at Tokyo University of Agriculture (June 1, 2023)



Gathering of young people from a movement branch (February 28, 2024)

Supporting Activities So That Humans and Bears Can Coexist

A project for supporting activities for coexistence between brown bears and people in Rausu Town has been implemented since the first phase (FY2011-FY2015), and this year marks the end of the second phase (FY2016-FY2024).

In the first phase, electric fences were constructed in the town between Kitahama and Aidomari and in the downtown area with the goal of preventing brown bears from entering the areas where people live. Although much effort was needed to manage the electric fences and maintain their effectiveness, the fences have succeeded in reducing brown bear sightings in the areas they surround. However, the residential areas of Rausu Town extend broadly along the coastline, and it is unfeasible to construct electric fences in all areas because of budget and maintenance constraints. As a result, a problem still remains in how to deal with brown bears in areas without electric fences.

Consequently, in the second phase, in addition to the maintenance and management of the electric fences built in the first phase, we set a goal of "creating a town that is less accessible to brown bears" for areas without electric fences. Specifically, by cutting down tall undergrowth such as giant butterbur, Japanese knotwood, and kuma bamboo grass near residential areas, we have aimed to create an environment that discourages brown bears from visiting human settlements by making it difficult for them to hide and use these areas as feeding grounds and migration routes.

Development as a Local Initiative

In fiscal year 2023, Rausu Town experienced 559 sightings of brown bears, its highest number ever. Compared to the 195 sightings in the previous year, that number is roughly triple the average number of sightings. Of these, more than 250 sightings were near areas of human activities, including urban areas.

Although this year has recorded a large number of brown bear sightings, only three sightings were within the electric fence area surrounding the center of Rausu Town, largely unchanged from the previous year. This demonstrates once again that the installation of electric fences has been an effective means for controlling the brown bears. However, daily maintenance is essential for maximizing the effectiveness of the electric fences, and this requires time and effort. Consequently, it will be necessary to continue to explore ways of maintaining and managing equipment in a sustainable manner that balances both costs and reach of installation.

The work related to the electric fences that Rausu Town has supported for 13 years from the start of the first phase in 2011 to the end of the second phase in 2023 will be transferred to town office operation from 2024. The electric fences located in various places around the town have been in place for over 10 years, and efforts have been made to maintain their functionality by updating replaceable live wires and poles as necessary. However, the electric fence surrounding the town also functions as a deer prevention fence and is made of wire mesh. In recent years, the fence has become increasingly damaged due to the passage of time and the weight of snow.

Electric fences have become an essential part of bear control measures for Rausu Town. Aiming for "coexistence between brown bears and people," we will continue to work hard on our daily electric fence operations and make use of the experience and knowledge that we have gained through our support thus far, including large-scale repairs to the wire mesh fence.