Eurasian J. For. Res. 5-2: 135 , 2002

Field Survey

AKIBAYASHI Yukio

Northern Forestry Research and Development Office,
Field Science Center for Northern Biosphere, Hokkaido University,
Nayoro, 096-0071, Japan

The day after the completion of the symposium, a two-day field survey began in the Uryu Experimental Forest, the first of its kind founded at University of Hokkaido. The primary participants were eight guest researchers from Russia, the Chinese Academy of Sciences, Canada, and sister colleges such as the University of Alaska in the United States, Seoul National University in South Korea, and the Northeast Forestry University in China. Other participants included 11 experimental forest alumni、who had joined the above group of people in Sapporo, and two Moshiri-area residents. Dividing themselves into two groups---the First Group of 16 consisting of foreign guest researchers and experimental forest personnel, and the Second Group of 18, experimental forest alumni, local residents, and other experimental forest personnel, the two buses left for the survey site.

The First Group conducted a survey with the main focus on the various projects underway in the Uryu Experimental Forest. At the first survey site, the M-1 Experimental Basin ("Jinja-Yama"), they observed research on the correlation between the long-term dynamics of a natural forest and small animals in the forest, research on the property circulation of a forest after a rainfall, the functionality evaluation of tree crown, and a study on snow melt and water quality, a joint research project with the Institute of Low Temperature Science. Next, in the Dorokawa swamp forest, which consisted mainly of Akaezomatsu (*Picea glehnii* Masters), they inspected the sites of ecological studies on *P. glehnii* and dwarf bamboo (*Sasa*) in an excessively wet forest and the research plot regarding the underground dynamics of water and nutrient salts of a swamp. Lastly, they observed Lake Shumarinai, completing the thorough inspection of environmental studies conducted at the Uryu Experimental Forest. The foreign guest researchers were very active in asking questions about research results and methods. They also remarked that the Uryu Experimental Forest had great potential as a long-term ecological research (LTER) site. They showed a strong interest in the advantages of the location of the experiment and lecture rooms as well as lodging facilities adjacent to the experimental forest. Another advantage was that the experimental forest was staffed with a full-time technical crew to support long-term studies and observations.

The Second Group, consisting mainly of experimental forest alumni, surveyed the afforested or renewed land of 20 to 30 years in the "Kage-no-Sawa" district, the M-1 Experimental Basin, and lastly, the Grassland for Grazing of Hokkaido Native Horses. The group confirmed that the researchers had created in the Todomatsu (*Abies sachalinensis* Masters) land, which had been afforested in 1982, a mixed forest with the naturally renewed birches as a preventive measure against shoot blight. The land has since recovered from this blight. In the *P. glehnii* forest, researchers initially planned a planting of windbreakers and designed the planting interval to be 4 m in order to reduce the time needed for thinning using heavy equipment. As a result, the number of planted trees was also reduced from the previous 2,500-3,000ha^{-1} to 1,450ha^{-1}. Furthermore, in place of the conventional method of weeding and brushing, and to take advantage of the wider intervals, they employed heavy equipment to crush down the birches that were competing with the afforested trees. Although there was initial criticism that the number of planted trees had been too few, the researchers did not find that to be valid considering the existing condition. At the "Jinja-Yama," local residents expressed surprise that a 20-meter forest tower had been built by experimental forest workers, and that the observation of acid fallout, which includes soil moisture and stem flow measurements, had been conducted. At the last stop, the Grassland for Grazing of Hokkaido Native Horses, the researchers inspected the land where 17 horses had grazed Chishimazasa (*Sasa kurilensis*) and listened with great interest to its development from the initial grazing to the current state. The experimental forest alumni urged them to hand down forestry technology to the new generation and devote themselves to further development.

In the evening of the first day, a centennial anniversary event of the Hokkaido University Experimental Forest was held with 20 Moshiri residents also participating. The residents offered words of reminiscence and future encouragement and the foreign guest researchers voiced their future expectations and encouragement. On the second day, while observing the afforested area that had been designed to be sensitive to the landscape and conservation of Lake Shumarinai, and gazing at the natural *P. glehnii* forest in the serpentinite area in the southern part of the Uryu Experimental Forest, the researchers started their return home to Sapporo, thus completing the field survey.