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Field Survey Trip of EMEA Project in China: From Russian Border to North Korean Border

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Abstract

One of the major aims of EMEA project is to understand and predict vegetation change in East Asia. According to this purpose, in the late June 2001, four Japanese members of the EMEA project, joined by two Chinese members, moved from Manzhouli, China's Inner-Mongolia Autonomous Region, located by the Russian border to Changbai Mountain located on the North Korean border. The vegetation changes gradually from desert to steppe, steppe to grassland, grassland to forest along with the precipitation gradient from west to east.

This is our second visit to Northeast Part of China. The first visit was May 2000. This year, we selected three different types of vegetation: coniferous forest, glass land, and steppe. Using spectrometer, and digital video camera, reflectances of the major plant species were measured from different orders of distance (1 m, 10m, 100 m, and 1000 m). From spring to early summer 2001, they had a little rainfall in northeastern part of China. The vegetations in the grassland and steppe were badly damaged. Individuals of plant were water stressed and short. Vegetation covers were looked yellow at a distance larger than 10 m order. These data will be valuable to evaluate the effect of climate change by remote sensing technology in future studies.

1. Reports of Activity

We started Kanazawa in the morning of Sunday, 17 June, getting on Thunderbird, the super express train bound for Osaka. We changed train at Shin-Osaka station, and get KIX at around 13:30. The air carrier was CA928: Kansai/Beijing 15:00/17:40. Drs. Xian bao and Deng welcomed us at the Beijing International Airport.

On 18 June, we visited Institute of Geographical Sciences and Natural Resources, CAS, in the north of Beijing. Two Korean participants, Drs. Lee and Kim, reached Beijing and joined us for dinner at that night.

Table 1 Itinerary of EMEA Beijing Symposium and field research trip in China, 2001.

17 June	Kanazawa-KIX-Beijing
18 June	Institute of Geographical Sciences and Natural Resources, CAS, Beijing
19 June	EMEA Symposium in Beijing (Institute of Geographical Sciences and Natural Resources, CAS)
20 June	Luan Cheng Ecological Experiment Station in Shijiazhuang Institute of Agricultural Modernization, Hebei province
21 June	Field survey in plantation, Yakeshi, Inner Mongolian Autonomous Region
22 June	Field survey in grassland, west of Hailar, Inner Mongolian Autonomous Region
23 June	Field survey in steppe, Lake Hulun, Inner Mongolian Autonomous Region
24 June	Manzhouli, Inner Mongolian Autonomous Region
25 June	Changchun Institute of Geography & Geo-informatics Research Centre, Changchun Institute of Geography, Changchun
26 June	Moving to Changbai mountain from Changchun
27 June	Changbai Mountain
28 June	Moving to Changchun from Changbai mountain
29 June	Moving to Beijing from Changchun
30 June	Farewell Party, Grand Continental Hotel, Beijing
1 July	Beijing-KIX-Kanazawa



Fig. 1 EMEA 2001 in Beijing Symposium, Banquet, and Luan Ecological Experiment Station (19-20 June).

On 19 June, the EMEA 2001 Symposium in Beijing was held in the institute. Nearly 100 scientists attended the meeting. We enjoyed great dinner of Chin Dynasty style. On 20 June, we visited Luan Cheng Ecological Experiment Station in Shijiazhuang Institute of Agricultural Modernization, Hebei province. Two Korean scientist must depart after lunch. Dr. Muramoto also must say good by to his friends.

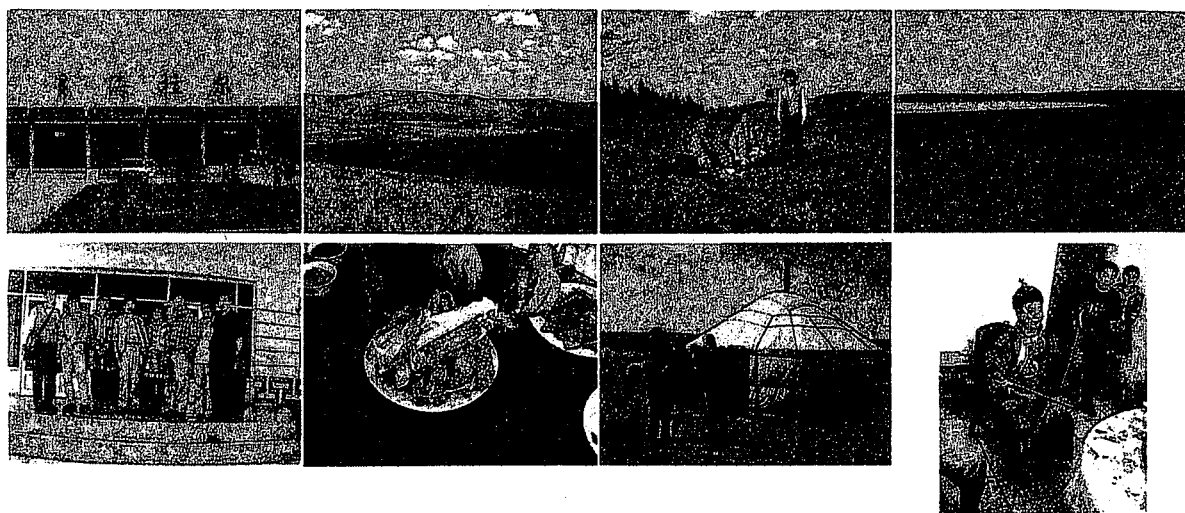


Fig. 2 Yakeshi and Hailar (21-22 June).

On 21 June, we got up early in the morning to catch the craft for Hailar. This was our second visit there. After check-in, we moved to Yakeshi by bus. It was a tough work to stay in the bus because of bumpy roads. From the top of the hill, the reflectance was measured using three different devices. Spectrometer, digital video camera, and digital camera. We stayed at Hailar city. Hailar city (1994 est. pop. 192,400), Inner Mongolian Autonomous Region, on the Hailar River. It is an agricultural production center on the Chinese Eastern RR. Formerly known as Hulun, Hailar consists of an old and a new city—the old section, founded in 1734 as a fort, is typically Chinese; the new section is a modern, industrial quarter [1].

On 22 June, we moved to west. In the way, field experiment was conducted at the same observational point as the previous year. The vegetation of glassland was observed. We enjoyed Mongolian style of lunch Mongolian music in PAO. We stopped overnight by lake Hulun.

On 23 June, we enjoyed boat on the lake. The third observation was conducted in the steppe near lake Hulun. We moved to Manzhouli. Manzhouli city (1994 est. pop. 129,100), NE Inner Mongolian Autonomous Region, China, on the Russian border. Heavy industry is the most important economic activity; main industries include coal mining and food processing. Manzhouli developed after the construction (1903) of the Chinese Eastern RR and was important as a customs station; until recent times virtually all trade between China and Russia passed through there. Many Russian émigrés settled in the city after the Bolshevik revolution. It was known as Lubin from 1913 until 1949 [1].

On 24 June, after climbing up a hill to see Russian border, we get on the overnight train at Manzhouli station. The train was bound for Beijing.

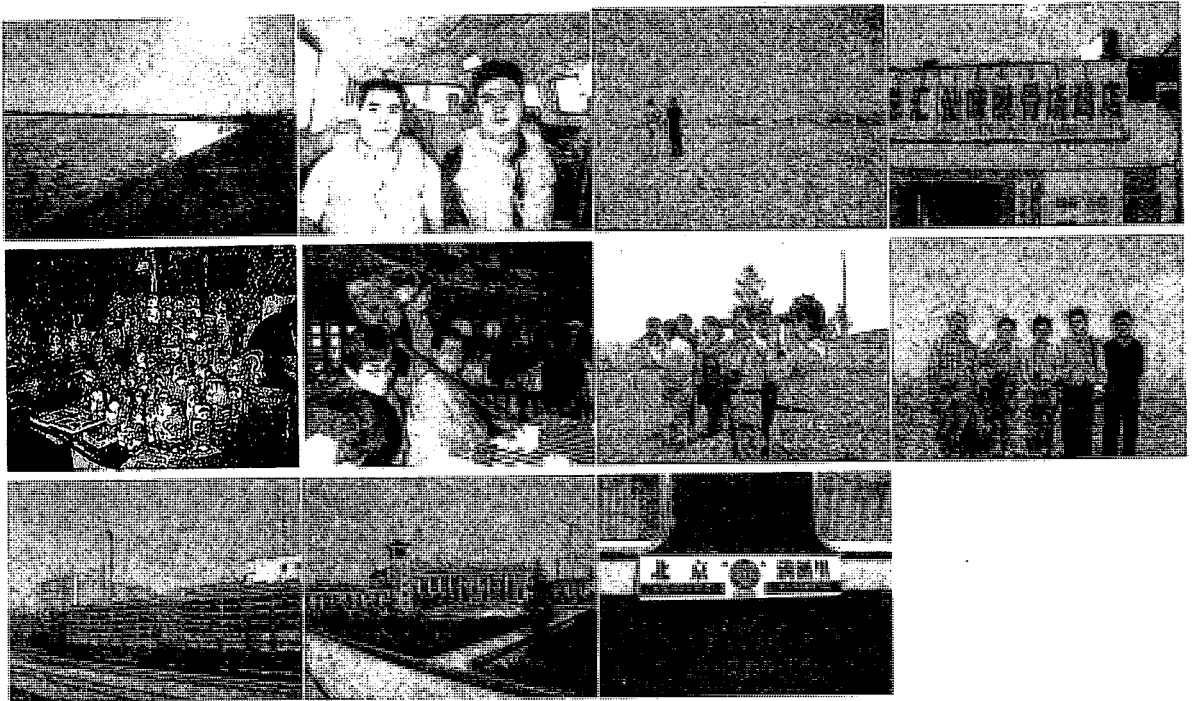


Fig. 3 Lake Hulun and Manzhuli (23-24 June).

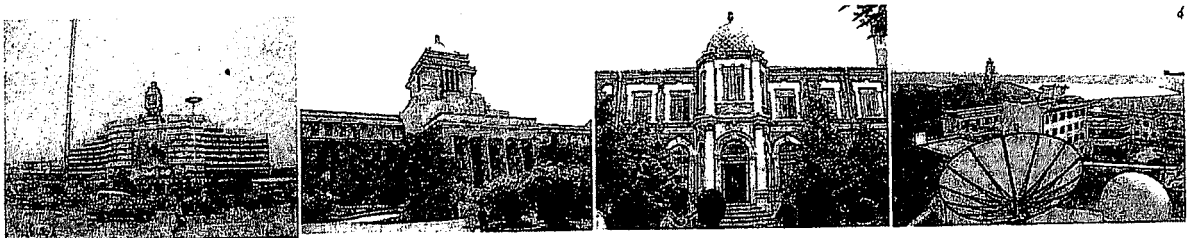


Fig. 4 Changchun (25, 29 June).

In the morning of 25th, we arrived at Changchun station. Changchun city (1994 est. pop. 1,810,400), capital of Jilin prov., China, on the railroad between Harbin and Dalian. An industrial city, it is one of the country's major center of transportation equipment production, including motor vehicle parts. Railroad cars, buses, tires, pharmaceuticals, and textiles are also manufactured. An aluminum plant is west of the city. Changchun is also a center for motion picture production. As Hsinking or Xinjing [=new capital], it was the capital of the former state of Manchukuo (1932-45). During this period the city was rebuilt along modern lines. Many of the large administrative buildings have been converted into universities; these include Jilin Univ., a polytechnical university, a medical college, and several technical institutes [1]. After check-in, we visited Changchun Zoological and Botanical Garden. In the afternoon, we visited Changchun Institute of Geography, CAS and the attached observatory station on the top of the hill.

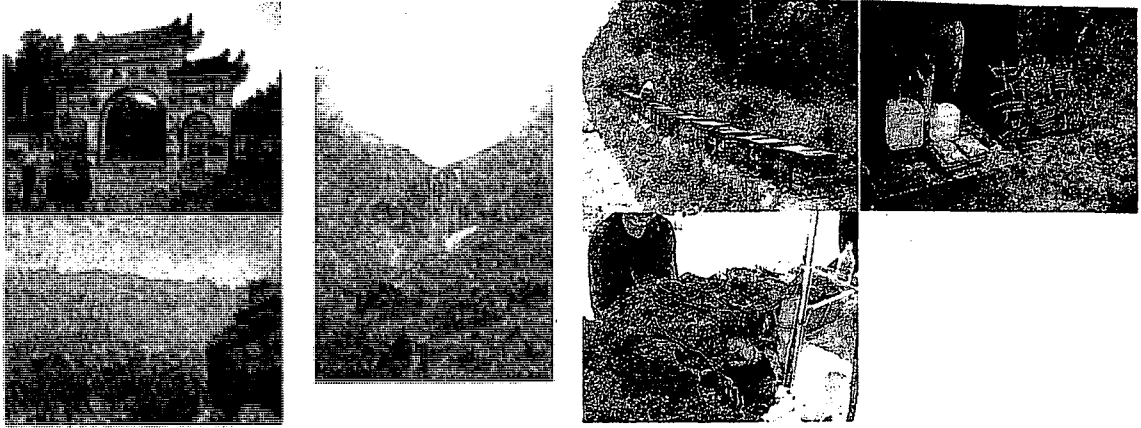


Fig. 5 Changbai mountains (26-28 June).

On 26 June, we moved to Changbai Mountain by bus.

On 27 June, the last field observation was conducted at the top of Mt. Changbai. We also enjoyed a great view there. Changbai mountain range, largely in NE China and partly in North Korea; Baitou Shan (9,003 ft/2,744 m) is the highest peak. The Changbai range is economically important for timber and coal deposits. The Yalu, Tumen, and Songhua rivers rise there [1].

On 28 June, we went back to Changchun, and on 29 June we flew from Changchun to Beijing. At the Changchun Airport, our flight was canceled without any announcements, our Chinese staffs were greatly helpful. However, only 5 seats were remained in the next flight. Dr. Deng reached Beijing very late in the evening.

On 30 June, the each of the Japanese members enjoyed Beijing city. In the evening, we were invited to a grate farewell party at the Chinese restaurant in the Grand Continental Hotel.

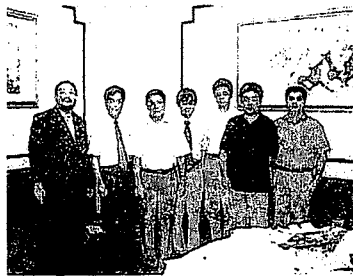


Fig. 6 Farewell party at the restaurant in the Grand Continental Hotel.

On 1 July, the Japanese members were reluctant to leave Beijig. We arrived at Kanazawa in the evening.

2. Acknowledgement

We Japanese staffs express our sincere thanks to Dr. Liu for his great efforts to organize the symposium. We also thank to our Chinese and Korean friends for their corporation to the symposium. Our coauthor Drs. Xianbao and Deng was greatly helpful during our field trip. Without their help, we would not be able to escape from Changchun Airport.

References

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