

A decorative graphic consisting of three blue circles of varying sizes and two thin blue lines. One line starts from the top left and passes through the center of the largest circle. Another line starts from the top left and passes through the center of the medium-sized circle. A third line starts from the top right and passes through the center of the smallest circle. A large, light blue circle is partially visible in the bottom right corner.

# **“Present Forestry, Agriculture and Husbandry Conditions in Mongolia”**

Joint Symposium

Mongolian University of Life Sciences and the United  
Graduate School of Agricultural Sciences, Iwate University

**Venue: Iwate University, Morioka, Japan  
December 8-10, 2014**

**Symposium: “Present Forestry, Agriculture and Husbandry Conditions in Mongolia”**

**Date: December 8 to 10, 2014.**

**Venue: United Graduate School of Agricultural Sciences, Iwate University, Morioka, Japan.**

The aim of this symposium is to broaden the collaboration between the United Graduate School of Agricultural Sciences (UGAS), Iwate University, the Mongolian University of Life Sciences (MULS) and Hannover University (LUH). During the symposium, we will have presentations regarding research projects in plant sciences conducted in UGAS, the results of the Joint research project between UGAS and MULS and past, present and future student exchange program between UGAS, MULS and LUH. In this symposium, we expect to have many presentations from Professors and students from the constituents Universities that will match studies being conducted in Mongolia and that will contribute to the collaboration between our institutions.

We invite all Professors and students from UGAS to participate in topics that range from forestry, grassland ecology, animal science, plant science and agriculture in cold environments.

\*, student talks

**December 8, Monday**

09:30-12:00 Round Table Discussion about Research and Exchange collaboration between UGAS and MULS

13:00- Registration

*Chairs: Hiyane A. and Erdenetsetseg*

13:30-13:40 Welcome Greetings

13:40-14:10 Internationalization plans, perspectives and expectations of MULS  
Erdenetsetseg (MULS, Mongolia)

14:10-14:40 Research Collaboration between UGAS and MULS  
L. Lopez (UGAS-Yamagata University, Japan)

(14:40-15:00 Break)

*Chairs: Uemura M. and Enkhchimeg*

15:00-15:20 Evaluation of abiotic stress resistant Mongolian wheat varieties based on gene expression analysis. V. Enkhchimeg (MULS, Mongolia)

15:20-15:40 Cold acclimation and the plasma membrane: two key players to make plants survive in winter. Matsuo Uemura (UGAS-Iwate University, Japan)

15:40-16:00 Strategies for improving rice productivity in cool climates under a future climate  
Hiroyuki Shimono (UGAS-Iwate University, Japan)

16:00-16:20 Effects of radioactive cesium fallout on grasslands from the Fukushima Daiichi Nuclear Power Plant in 2011. Mikinori Tsuiki (UGAS-Iwate University, Japan)

16:20-16:40 Introduction of storage building for farm products using cold energy from natural ice.  
Masato Kimura (UGAS, Obihiro University, Japan)

16:40-16:50 Break

Chairs: Tsuiki M. and Shimono H.

16:50-17:10 Creating a new cultivar of chili pepper 'Hirosaki Zairai' by using DNA markers  
\*Sumiyo Sato (Hirosaki University Japan)

17:10-17:30 A cold acclimation-responsive glycosylphosphatidylinositol-anchored protein (GPI-AP) is necessary for the acquisition of freezing tolerance in *Arabidopsis*  
\*Daisuke Takahashi (UGAS-Iwate University, Japan).

17:30-17:50 Actin dynamicity regulates the response of auxinic herbicide 2,4-dichlorophenoxyacetic acid  
\*Kana Umetsu (Iwate University, Japan)

17:50-18:10 Screening for CO<sub>2</sub> responsive cultivars in Indica rice  
\*Shinji Kikuchi (Iwate University, Japan)

18:30-20:00 Reception (Restaurant or University)

## **December 9, Tuesday**

Chairs: L. Lopez and P. Ferrio

9:00-9:20 Stable isotopes for the study of plant water uptake, methods and applications  
P. Ferrio (Lleida University, Spain).

9:20-9:40 Study of the N cycle by means of isotopes of Mongolian larch stands  
\*Mika Hayashi (Yamagata University, Japan)

9:40-10:00 Spatial variations in larch and soil  $\delta^{15}\text{N}$  reflecting N dynamics along forest-grassland gradient in northern Mongolia. \*Rei Fujiyoshi (Hokkaido University, Japan)

10:00-10:20 Growth response and adaptation in conifer forests of Mongolia to climate warming  
M. Khishig (MULS, Japan)

10:20-10:40 Reconstruction of climate in Mongolia by means of tree-rings and isotopes  
\*Qiqin Cho (Yamagata University, Japan)

10:40-10:50 Break

Chairs: Khishig and Seidel F.

10:50-11:10 Environmental variability analysis of Mongolian larch forest using tree-ring carbon isotope ratio. \*Asami Kitayama (Hokkaido University, Japan)

11:10-11:30 Global warming impact for the boreal forest at tree line area in northern Mongolia. \*Kouta Kobayashi (Yamagata University, Japan)

11:30-11:50 Carbon and nitrogen distribution of Mongolian steppe soils depending on relief and land use  
\*F. Seidel (Hannover University, Germany)

11:50-12:10 Study of forest pest insects and diseases in Mongolia. M. Byambasuren (MULS, Mongolia)

(12:10-13:30) Chairs: Nobori Y. and Byambasuren

- 13:30-13:50 Snowmelt and hydrological interaction of forest grassland ecosystems in Central Yakutia, eastern Siberia. L. Lopez (UGAS, Yamagata University, Japan)
- 13:50-14:10 Distribution of soil nitrogen in a Japanese Cedar stand following slash and burn, Shonai, Japan. \*Andre Schmidt (Hannover University, Germany)
- 14:10-14:30 Auxin and temperature stress: molecular and cellular perspectives  
Abidur Rahman (UGAS-Iwate University, Japan)
- 14:30-14:50 Evaluation of CH<sub>4</sub> and N<sub>2</sub>O emission from Japanese black pine coastal forest invaded by black locust. \*Masaki Sato (Yamagata University, Japan)
- 14:50-15:10 Difference in resource allocation among beech trees (*Fagus crenata*) in Yamagata  
\*Kunika Iinuma (Yamagata University, Japan)
- 15:10-15:30 Break

Chairs: Dugarjav and Takeda K.

- 15:30-15:50 A study about computed tomography analyzing system for forest structure  
Yoshihiro Nobori (UGAS-Yamagata University, Japan)
- 15:50-16:10 Possibilities to use carbon model in carbon accounting of Mongolia  
D. Dugarjav (MULS, Mongolia)
- 16:10-16:30 Response of Trees to Climate Changes in the Watershed around Lake Hovsgol, Northernmost Mongolia. Kazuo Takeda (UGAS-Obihiro University of Agriculture and Veterinary Medicine, Japan)
- 16:30-16:50 Estimation of regeneration time and simulation of forest structure on coastal forest at Miyagi, Japan \*Kaori Minami (Yamagata University, Japan)
- 16:50-17:00 Break
- 17:00-17:20 Effect of Lake Hovsgol on the meteorological conditions in permafrost regions  
\*Akifumi Sugita (UGAS- Obihiro University, Japan)
- 17:20-17:40 Physical and chemical characteristics of snow in Shounai area  
\*A. Brandt (Hannover University, Germany)
- 17:40-18:00 Discussion about the Symposium and next activities.

**December 10, Wednesday**

- 9:30-13:00 Tour  
Tohoku Agricultural Research Center, National Agriculture and Food Research Organization  
Tohoku Research Center, Forestry and Forest Products Research Institute

**(Program is subject to change)**