

Summary of
Research Group Session 3:
Management (RG3)



Pil Sun Park (SNU)

The long-term study sites in Nambu University Forest of Seoul National University, Korea

- Summary
- Plantations were established to investigate growth characteristics and adaptability to the region.
- *C. japonica* and *A. firma* showed good height growth.
- *P. koraiensis*, *A. firma* and *P. abies* showed good DBH growth.
- New monitoring project just began recently

Kyu-suk Kang (SNU)

Forest management and experimental forest plantation during the Japanese occupation in South Korea

- Summary
- Introduce history of destruction and rehabilitation of forests in South Korea
- Evaluation of multiple forest function just after Korean war and at present
- Showed lessons from the successful rehabilitation

Biing T. Guan (NTU)

Sugi at NTU EXPF: its past, present, and future

- Summary
- History of Sugi plantation in Taiwan (planted until 1990, limited harvest now)
- Growth characteristics:
 - Grow fast in the first 15 years
 - Then growth started to decline rapidly
 - Growth became stagnant at age around 50 years
- In future: gradual removal, replacing with native conifers, understory planting with native broadleaved trees

Toshiaki Owari (UTokyo)

Bringing long-term growth records of *Cryptomeria japonica* plantations for collaborative research

- Summary
- Present the growth records and key research findings of sugi plantation at UTokyo Chichibu forest, Soehatazawa experimental forest and forests in Akita district
- Review sugi growth studies using long-term experimental plots in north-eastern Japan
- suggest potential collaboration research topics among Japan, South Korea and Taiwan

Keisuke Toyama (UTokyo)

Coniferous plantation and long-term experimental plots in the UTokyo Chiba Forest

- Summary
- Long history of managing Sugi and Hinoki planted forest
- Especially, 10 plots measured every five years since mainly 1916
- DBH (and height) still shows good growth
- They Have been researched, but by domestic researchers

Takuya Hiroshima (UTokyo)

Introduction of the computerized yield table construction system in Japan

- Summary
- Introduce popular stand simulator called “LYCS” in Japan
- Demonstration of LYCS
- Application of LYCS to sugi plantations in Taiwan

Pichit Lumyai (KU)

Climate effect on tree growth of highland plantation at Angkhang Royal project Chiang Mai province

- Summary
- Dendrochronological analyses (cross-matching and cross-dating) of 5 species of *Pinus*, *Cunninghamia*, *Cryptomeria* (Sugi), *Chamaecyparis* (Hinoki) and *Prunus*
- 3 species passed the relationship test by COFECHA program
- They showed significant correlation with temperature and rainfall

Wilson V. C. Wong (UMS)

Use of remote sensing to support forest resources monitoring in forest management unit and plantation forests

- Summary
- Introduce remote sensing techniques for forest resources monitoring in FMUs and plantations
 - Airborne LiDAR (available for crown surface, understory, ground surface)
 - Use of UAV with SfM technique (available for crown surface only)
- Several airborne LiDAR research are ongoing in Sabah

Research group discussion

Joint application for research grant for Japanese private foundation (1-4 million Yen for 1 year project)

UTokyo, SNU and NTU may be key institutions

Potential research topic

- Comparison of growth of sugi plantations in 3 countries in terms of climate response
- Core sample of sugi may be available to compare the growth patterns (20-30 samples are enough)

Possible achievement

Review paper, interim reports, etc