

# 4th FEFCO

Forest Ecosystem Function Colloquium (FEFCO) は、地域や地球全体のレベルで森林生態系の機能とその持続的活用法を統合的に理解することを目的とし、研究者間の学術交流を推進します。

第4回森林生態系機能コロキウムは、ミシガン州立大学のNathan Swenson博士にご講演いただきます。またSwenson博士のご講演に合わせて、機能や系統を考慮した日本の樹木多様性の広域解析を推進している東北大学の饗庭正寛博士にもご講演いただきます。Swenson博士の南北アメリカスケールの話と、饗庭博士の日本広域スケールのお話を合わせて聞くと、面白さは倍増です。京都大学農学研究科森林生態学分野がホストを務めます。

## 4th FEFCO

(day1) 2014/3/11 10:00 - 12:00

(day2) 2014/3/12 10:30 - 12:00

Faculty of Agriculture Main Building, S174  
Dr. Nathan Swenson (Michigan State University)  
Dr. Masahiro Aiba (Tohoku University)

### 1) The distribution and diversity of woody plant function on continental scales

A key goal in ecology is to determine the mechanisms underlying the distribution and diversity of species. Our ability to address this key problem hinges on our ability to link variation in organismal function to the ecological patterns of interest. In this seminar, I will examine the distribution and diversity of woody plants on continental scales and demonstrate how large spatial and trait databases can be joined to address fundamental ecological and evolutionary questions.

#### Trait-based analyses of tree communities and human impacts on the diversity at a large spatial scale

Integrating a functional trait database with a large scale forest inventory database provides a great opportunity to tackle various important questions in basic and applied ecology. In this seminar, I will show two examples of a large spatial scale analysis based on a recently compiled database of functional traits of Japanese tree species; (1) trait-abundance relationships in tree communities and (2) human impacts on functional diversity.

### day1

10:00-11:20

大陸スケールでの樹木の機能的多様性の空間分布に関する研究

11:20-12:00

機能形質を利用した樹木の群集構造ならびに人為攪乱による多様性損失の広域解析 (饗庭正寛氏)

### day2

植物の機能や系統を考慮した群集解析のノウハウに関する講義

### 2) Phylogenetic and Functional Analyses of Ecological Communities

Phylogenetic and Functional Analyses of Ecological Communities

The last decade has seen an extraordinary increase in the number of studies that integrate phylogenetic and functional trait information into classical community ecology. Much of this research has demonstrated that inferences made without phylogenetic and/or functional information are often greatly refined or completely overturned when adding this information. Despite these key findings, there are still many conceptual and analytical issues that must be more closely considered in the future. In this seminar, I will discuss the foundational works in this field and discuss future directions that should be fruitful for research.