

34th 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34回森林生態系機能コロキウムは、ロレーヌ大学のDaniel Epron先生にご講演いただきます。どなたでも参加できますので、多くの皆様のご参加をお待ちしております。京都大学農学研究科森林利用学研究室がホストを務めます。

34th FEFCO

2017/1/19 16:00 - 17:30

Faculty of Agriculture Main Building, S174

Daniel Epron, (University of Lorraine, JSPS Invitation Fellowship for Research in Japan)

Emulate nature: agroecology applied to intensive forest plantations

Intensive forest plantations (monospecific, regular spacing, even age) lack most of key elements accounting for the resiliency of natural forests. The introduction of nitrogen-fixing tree (NFT) in fast growing tree plantations is a sustainable management option aiming to reduce the risk of nitrogen deficiency due to a large and frequent exportation of nutrients at harvest.

Facilitation, defined as the positive influence of one species on the growth of another, is expected if N is limiting growth and if atmospheric N₂ fixation by NFT increases nitrogen availability. Moreover, two species in a mixed plantation may exploit a limiting resource more efficiently than either of them in a monoculture, reducing competition. In this talk, I will synthesize results we have obtained on mixed-species plantations of *Eucalyptus urophylla* × *grandis* and *Acacia mangium* on nutrient-poor soils of the coastal Congolese plains.