

# 42<sup>th</sup> 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42回森林生態系機能コロキウムは、New South Wales大学のWill Cornwell博士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生態学研究室がホストを務めます。各発表要旨についてはFEFCOホームページをご覧ください。<http://www.bluemoon.kais.kyoto-u.ac.jp/FEFCO/index.html>

42<sup>th</sup> FEFCO  
2018/5/18 16:30 - 18:00  
Faculty of Agriculture Main Building, S174  
Dr. William Cornwell  
(University of New South Wales, Australia)

## Controls on functional diversity in plant communities

There is a wide consensus that functional diversity is crucial for ecosystem processes, but the controls on functional diversity are poorly understood. In this talk I will outline what we know about functional diversity from studies of community assembly, highlighting my own work on California woody plant communities. In California across a gradient from mesic to xeric systems, trends in trait means with the environment were due largely to species turnover, with intraspecific shifts playing a smaller role. Traits associated with a vertical partitioning of light showed a greater range and variance on the wet soils, while nitrogen per area, which is associated with water use efficiency, showed a greater spread on the dry soils. I will discuss challenges in moving from observations to a more general model for controls on functional diversity..