

58th 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方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58回森林生態系機能コロキウムは、スイス連邦工科大学チューリッヒ校より Miguel Berdugo 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。京都大学農学研究所環境学研究室がホストを務めます。

58th FEFCO
2022/1/20 17:00 - 18:30

via zoom (for registration, please fill out following form
<https://forms.gle/NHh7VeWc5Q3Rkwr6>.



Dr. Miguel Berdugo (ETH Zurich)

Thresholds in arid ecosystems: evidences and perspectives

Drylands (areas where it rains less than 35% of what is evaporated) are the vastest biome on Earth and host more than 2 billion people whose livelihood strongly depends on the services provided by ecosystem that they inhabit. Within these areas climate change will worsen water shortages, increasing aridity experienced by these ecosystems. Of particular concern is the fact that changes imposed by increasing aridity may occur abruptly rather than gradually. Here I summarize the research done globally to unveil whether abrupt changes in key ecosystem attributes and functions are common in drylands and which ecosystem attributes are most affected by them. I report: i) three aridity thresholds unchaining abrupt changes in different attributes and functions of drylands as aridity increases in environmental gradients, ii) that dynamics of ecosystem productivity are also predominantly abrupt in drylands and match some of the thresholds announced and iii) some mechanisms that may explain abrupt changes in drylands.