



中央研究院生物多樣性研究中心

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## Fully Automated Eco-acoustic Monitoring: From the Tropics to the Nordics



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**Time : 2022. 11. 08    Tue. 10:50**

**Venue: Auditorium, 1st Floor**

**Interdisciplinary Research Building**

**跨領域科技研究大樓 1 樓演講廳**

**Host: Dr. Mao-Ning Tuanmu 端木茂甯助研究員**



## Abstract

Anthropogenic pressures are causing ecosystems around the world to change at an increasing rate. Accurate and high level monitoring of these changes is necessary, yet traditional survey techniques are often taxonomically focused, laborious, or scale poorly. In this talk we will explore how fully automated eco-acoustic monitoring can address the challenge of accurately mapping large scale ecological changes over long time periods. We will cover rugged recording devices which upload audio in real-time directly from the field, as well as the state-of-the-art machine learning analyses being developed to make sense of the incoming data. In addition to covering the technology, we will discuss how eco-acoustic monitoring is being used to solve real ecological challenges; from a tropical forest fragmentation experiment in Malaysian Borneo (SAFE Acoustics), to a study investigating the composition and dynamics of avian communities in Norway (Sound of Norway). As eco-acoustic monitoring continues to mature, there will be countless more opportunities for it to contribute to fundamental scientific discovery, evidence based nature management, and sustainable policy development.