Cutting-edge technologies for primate research, monitoring, and conservation

Tuesday 30, 2:30 to 4:30pm

Speakers:

Eva Gazagne
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Overview:

Rapid technological innovation is reshaping primate research by enabling non-invasive, high-resolution monitoring across spatial and temporal scales. This symposium will explore recent methodological advances that are transforming how primatologists document species presence, behaviour, and ecological interactions, with direct implications for conservation science and management. Environmental DNA (eDNA) analysis allows the detection of primate species from environmental samples, providing a powerful tool for biodiversity assessment. Passive acoustic monitoring offers long-term, automated insights into species distribution, vocal behaviour, and even responses to anthropogenic and environmental disturbance. Thermal imaging (with or without drones) and camera trapping further expand observational capacity by capturing nocturnal or arboreal activity patterns with minimal disturbance to subjects. In parallel, bio-logging technologies (including GPS units and accelerometers) generate fine-scale data on movement ecology, energy expenditure, and behavioural patterns. AI helps analyze the vast amounts of data these techniques generate, providing accurate information, minimizing human impact, and enabling more efficient resource allocation. The integration of these complementary approaches within unified analytical frameworks enables the reconstruction of complex ecological and behavioural dynamics. By showcasing case studies and methodological developments from diverse field contexts, this symposium aims to foster dialogue on best practices for data collection, ethics, and technological innovation in primate research. Collectively, these tools are redefining the frontiers of primate monitoring and providing essential insights for effective, evidence-based conservation strategies.

Organizers: Daria Valente, Olivier Kaisin