Title:
New tech in conservation research – Transforming fieldwork with Multi-Track aerial wildlife tracking

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Abstract:
Locating and monitoring birds and other wildlife is challenging, particularly in difficult terrain and forested landscapes. GPS and satellite technology can struggle to obtain positions if their view of the sky is obstructed, and these devices are often better suited for tracking larger species. VHF radio telemetry has been used for wildlife tracking for many decades, and works well even under dense canopy. However, traditional receivers have some limitations including single-frequency tracking, triangulation, and no data-logging capability. In this talk, we discuss Multi-Track receiver technology, a revolutionary advancement in VHF radio telemetry which enables the simultaneous monitoring of 500 frequencies, eliminating the need for sequential scanning. It automatically determines positions without requiring triangulation, enabling tracking while in motion without the requirement for hovering and rotating on the spot, and it exports position data for spatial analysis and longitudinal comparisons. We explore several case studies and discuss the advantages of aerial tracking using Unpiloted Aerial Vehicles (UAVs), as well as piloted aircraft. We highlight the increased speed, safety, and efficiency of fieldwork, as well as the support for fully-automated searches. Through comparisons with other sensor technologies such as visual and thermal imagery, we demonstrate the efficacy of Multi-Track receivers in locating cryptic species. In this talk we provide insights into the transformative potential of advanced aerial tracking technologies for conservation research and wildlife management.