

How can technology facilitate environmental data collection: The Biologists Wishlist

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The number of species threatened with extinction is increasing drastically. A recent report by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) found that over 1 million species are now under threat, impacting the ecosystems and processes they support. Understanding trends in species and communities across space and time and the driving factors responsible for these changes are key to tackling current challenges.

As biologists and ecologists we are constantly looking for methods to monitor species that minimise bias and the invasiveness of data collection, maximise the quantity and quality of data collected, both spatially and temporally and we require fast and efficient methods for analysing the vast amounts of data collected. In recent years advances in technology have facilitated this, however challenges remain.

In this talk we will discuss how technological advances have facilitated data collection and analysis and what is needed to enable continued developments in the future. The focus here will be around the use of acoustic devices, robotics and the AMI trap, which is currently under development at the UK Centre for Ecology and Hydrology.