Session title

Monitoring and Modelling Groundwater Dependent Ecosystems: Recent Advances and Traditional Knowledge

Description

Groundwater supports multiple ecosystems and ecosystem services, each requiring bespoke monitoring and management to protect against anthropogenic and climatic impacts. Technologies to remotely monitor these systems have rapidly advanced from coarse (e.g. LandSat) to fine (e.g. drone) scales, whilst modelling has progressed to involve multiple linked packages and AI integration of large datasets to predict potential impacts. On-ground verification is still critical, requiring detailed and temporal investigations and recent monitoring must be placed in historical (and pre-historical) context to validate the models. Tracer studies and incorporation of Traditional Knowledge become keys to unravelling the life story of these fragile, often endemic, systems that rely on groundwater for their very existence, now and into the future. This session aims to integrate all the lines of evidence needed to understand and protect these unique, groundwater dependent ecosystems.

Keywords

GDEs; remote sensing; Traditional Knowledge; bespoke numerical solutions; multiple lines of evidence

Session Chair

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