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# Temporal trajectories of ecosystem services: ecological insights for long-term analyses

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## Abstract

Ecosystem services, the benefits that ecosystems provide to society, lie at the interface between social systems and ecological systems, and are either directly managed by human activities or indirectly impacted through the management for specific production and well-being goals. Temporal trajectories of ecosystem services are of particular interest in order to understand how trade-offs between different management and societal objectives unfold through history and into the future depending on social context. The quantification of the ability of ecosystems to supply services is a delicate task that requires us to use the best available ecological knowledge along with multiple data sources on environmental parameters, land use and biodiversity. In this presentation I will show some of the methods ecologists can contribute to this endeavour, and illustrate their application in recent studies of ecosystem service history and ecosystem service scenarios. I'll end by opening the discussion on how we can further progress through the use of interdisciplinary knowledge and multi-proxy paleo data to continue developing our understanding of past, present and future dynamics of ecosystem services.

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