Novel ecosystems - where biotic and/or abiotic changes have led to systems that have no analog in the present or past - are a worldwide phenomenon. Myriad interacting environmental changes and
thresholds to restoration prevent return to some historical state. What should restoration ecologists do when confronted by such systems? One answer may be to restore function to degraded systems.

In this talk, Dr. Perring will introduce the concept of novel ecosystems and show their global importance in the 21st Century. He will argue that they are a necessary consideration for restoration ecology. He will then introduce the Ridgefield Multiple Ecosystem Services Experiment, which shows a potential path for restoration management in novel ecosystems while also testing ecological theory. Ridgefield, in the highly fragmented agricultural landscape of south-west Western Australia, investigates how species composition and diversity (through variation in the plant traits within the system) influence the provision of multiple valued ecosystem functions including carbon sequestration, nutrient cycling and resistance to non-native invaders. He will share some early results from this recently planted long-term experiment, showing how differences in survival may affect the long-term provision of, and trade-offs among, ecosystem services. Finally, he will discuss his aims in his collaboration with Erle Ellis and SESYNC, and would welcome feedback on the ideas being presented.