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PhD Candidate

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Summary

Mangroves and saltmarshes provide a series of essential ecosystem services, including fisheries and fibre production, carbon sequestration, shoreline protection and sediment regulation. Carbon sinks in mangroves comprise underlying sediments, living biomass above ground, below ground and non-living biomass. There are a host of methods for predicting the C sequestration potential of forest habitats. Scientific management of mangroves in urban mangroves is a challenge in securing ecosystem services, while counteracting some adverse impact of anthropogenic C emissions. My research aims to estimate C sequestration and CO₂ efflux through models incorporating various known drivers for C dynamics or in situ and in vitro measurements.

Research Expertise

- R language application in statistical and spatial analyses as well as multi-criteria decision-making.
- Matlab application in matrix and linear programming.
- SPSS application in statistical analysis.
- Use of infrared gas analysers to measure CO₂ flux.
- Sediment physico-chemical analysis.
- Use of sediment traps to investigate the sedimentation rate.