

Remaking Waterscapes with Constructed Wetlands

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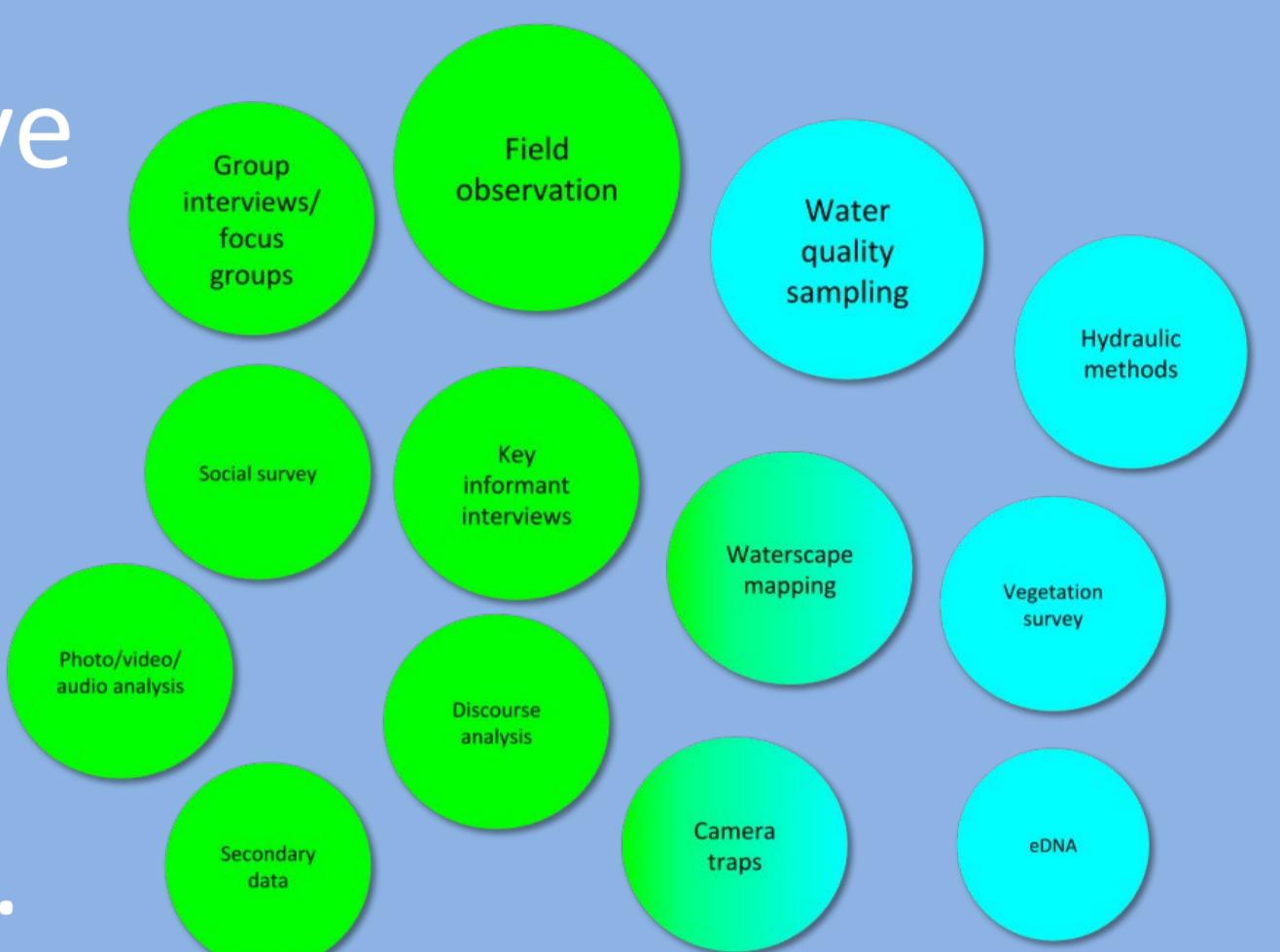


Introduction

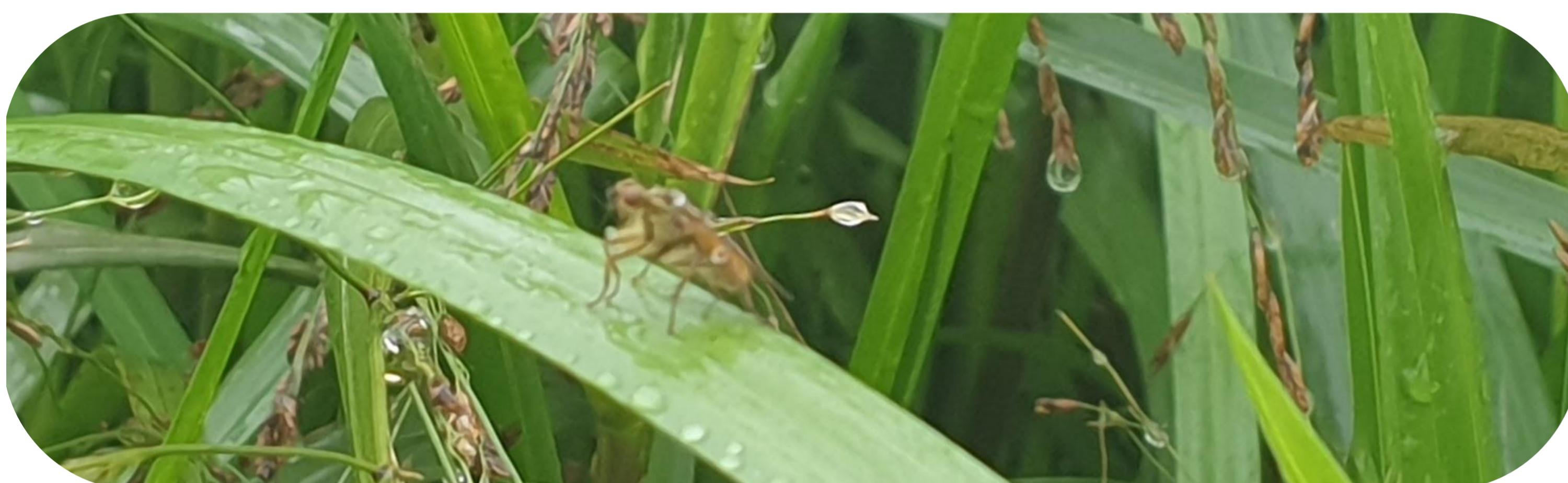
My research investigates constructed wetlands at three case study sites, in rural India and Scotland. I am interested in using constructed wetlands as a site to explore the impacts and politics of 'blue green' or 'nature-based' infrastructures within broader waterscapes. Following the concept of multiple benefits, I consider not only **water treatment**, but have also explored the role of constructed wetlands as **habitat**, and as sites of **resource production**.

Methods

I use a variety of quantitative and qualitative methods in order to understand social and ecological processes of **water treatment** and **habitat making** at each site.



Finding ways to combine diverse methods within one framework is a key focus of my research.



Constructed wetlands as habitat

The potential for constructed wetlands to function as habitat is widely recognised. How can we understand the quality of this habitat for both the living beings who interact with the wetland, as well as the humans who live around these wetlands? I am using the frames of *diversity* and *vulnerability* to explore qualitatively the relations between people, water, plants, insects, mosquitoes and other animals around each constructed wetland. I aim to produce a novel concept of habitat for these infrastructures

Knowing and transforming water quality

The performance of each wetland in transforming wastewater quality has been variable. To account for water quality patterns within wetlands and over time, I am tracing hydraulic, ecological and social processes at each site as well as representations of these processes in the constructed wetland literature.

My research also critically examines various concepts of water quality that are used to evaluate water treatment. Through tracing the history of different methods of water quality testing and evaluation as well as their use at each site, I consider the possibilities for more *situated* forms of water knowledge, that enable greater flourishing for people and other beings.



Conclusions

Constructed wetlands have great potential to reshape waterscapes for the better. Their impact depends upon how benefits are conceptualised and on the complex and ever-changing social and ecological relations within each waterscape.

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