



# UK Coastal Research Conference

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### **THE IMPORTANCE OF SMALL ESTUARIES ON THE SEDIMENT BUDGETS OF THE WIDER SEASCAPE – WHAT DO WE REALLY KNOW?**

Heidi Burgess [1], Charlie Thompson [2], Jane Cunningham [3], Rebecca Hartless [4], Jonathan Dale [5]  
[1] University of Brighton, [2] University of Southampton, [3] Chichester District Council, [4] UK Environment  
Agency, [5] University of Reading

There are 163 estuaries registered on the DEFRA UK Estuaries Database. Historically, the larger estuaries have attracted the majority of research attention, while the smaller estuaries have been predominantly ignored. This means there is little detailed baseline understanding of how these systems function.

In Sussex, multiple eco-system-health projects are underway (e.g., Sussex Bay, CHASM, Sussex Kelp Restoration), all of which have identified the same knowledge gap; we have no solid evidence base to understand estuarine hydrodynamics or quantify the output of sediment from our rivers, through the estuaries, and into the coastal waters.

Pollutants that may bind to sediment and become buried or resuspended from the estuarine bed also impact an ecosystem's health and viability. As the climate is changing, so are the balances of sediment and pollutants. This has implications for a wide range of issues, which underpin coastal morphology, functioning, and future. This is not just a local or national issue; it is a global issue that needs addressing.

This talk presents results from multiple short-term studies of individual Sussex Estuaries to address these gaps in knowledge, and a proof of concept of a field data collection methodology is presented. This is seen as the first step in developing a proposed framework, which would see the combination of field, satellite and model data being utilised to feed into the wider coastal and seascape management in a wide variety of interconnected disciplines.