Coastal Habitat Restoration in the Thames

Over the last few centuries, Britain's seascapes have been altered dramatically and people have become increasingly disconnected from nature. Nearly 80% of UK estuaries and 56% of UK coastal waterbodies are in extremely degraded condition. We have lost 85% of saltmarsh habitat since the 1800's, up to 92% of our seagrass, and 95% of our native oyster beds since historical records began. The primary pressures on these habitats include physical modification, coastal development, and coastal and estuarine erosion due to sea level rise and increased storm events. Seagrass and oyster bed habitats are also at risk from poor water quality, and loss through seabed trawling, boat mooring and anchoring. With their loss, we lose the ecosystem benefits these interlinked habitats provide including flood attenuation, reduction in storm surges, reduced coastal erosion, removal of nutrients and water turbidity, carbon sequestration and nursery, feeding and overwintering habitat for many fish and bird species. These services also have socio-economic benefits enabling more climate resilient communities and supporting coastal economies through, for example, livelihoods, tourism and health and wellbeing. As an example, current saltmarsh extent in the UK provides £1 billion worth of flood protection, protecting homes and enhancing existing coastal defences. Saltmarsh can sequester 5 t carbon ha^{-1} yr^{-1} mitigating climate change, and 0.8 tonnes nitrogen ha^{-1}, reducing the risk of eutrophication.

The Thames Estuary, where the North Sea meets the River Thames is a major international shipping route, has two large shipping ports, commercial fishing grounds and is bordered by homes for over 6 million people. It is also a rich tapestry of habitats including saltmarsh, seagrass, mudflat, native oyster beds and sand banks and is an essential fish nursery, overwintering bird territory and seal feeding and pupping area. Sadly, many of these habitats are in a highly degraded and fragmented state and have been declining both in size and quality. The Thames has lost 43% of saltmarsh habitat (in the last 130 years) and 87% of seagrass habitat historically.

Coastal habitat restoration is increasingly being seen as an important and essential management tool in inshore areas both in the UK (as evidenced by the inclusion of wide scale habitat recovery in the Government's 25-year Environment Plan) and globally (2021-2030 has been marked as the UN Decade for Restoration and the UN Decade for Ocean Science). Previous efforts of habitat restoration in the UK have tended to focus on one habitat however there is increasing evidence that an integrated approach at an ecosystem scale, such as across the Thames Estuary, can demonstrate much greater ecological and economic benefits as well as better restoration success.

The Zoological Society of London with the Coastal Partnerships Network's 3Cs project (CPN 3C's) led by the Thames local Coastal Partnership, Thames Estuary Partnership (TEP), is holding a workshop titled, '**Coastal Habitat Restoration in the Thames**' on 15 March 2022. The workshop will bring together stakeholders from across London, Kent and Essex including NGOs, policy makers and academics. This will be first workshop of its kind here in the Thames and will aim to discuss and review existing restoration projects, obstacles and opportunities for restoration and interrogate national habitat opportunity maps using local expertise. The workshop will aim to link interested local stakeholders in the Thames land and seascape to catalyse and facilitate coastal restoration at an ecosystem scale.