



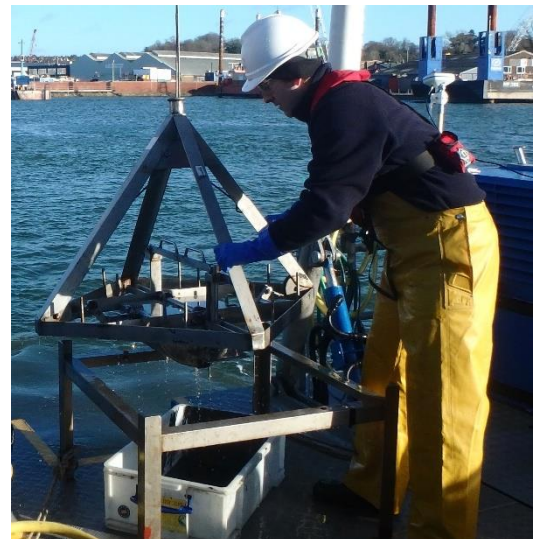
# MARINE BENTHIC ECOLOGY

**Carcinus Ltd provides a wide range of subtidal and intertidal benthic and epibenthic ecological surveys for marine and estuarine environments. Our experienced benthic ecologists undertake all stages of survey delivery, including regulator consultation to agree survey design, planning, field survey and reporting.**

## **SUBTIDAL BENTHIC ECOLOGY**

Carcinus delivers subtidal benthic ecology survey and data analysis services for both nearshore and offshore environments. Our specialist ecologists and environmental scientists have a detailed knowledge of marine benthic ecosystems and habitats. Our subtidal benthic ecology services are outlined below.

- Designing of survey methodologies and arrays.
- Regulatory agreement of approach.
- Drop-Down Video (DDV) for subtidal habitats.
- Ecological diver surveys (HSE Part IV divers).
- Scientific 2 metre beam trawls for epibenthic fauna.
- Substrate sampling using a variety of grabs/cores for infauna, Particle Size Distribution (PSD), contaminant and physico-chemical analysis.
- Subtidal biotope determination and mapping using Side Scan Sonar (SSS) and MBES data analysis (including backscatter).
- Taxonomic identification and enumeration of marine fauna utilising an NMBAQC assured laboratory.
- The interpretation and reporting of field data using statistical methods and software such as PRIMER.



Subtidal benthic infauna sampling – Day grab





### INTERTIDAL BENTHIC ECOLOGY

Carcinus provides intertidal benthic ecology services for a wide variety of coastal and estuarine habitats, including salt marsh, mudflats, seagrass / eelgrass beds, rocky shores and intertidal reef habitats, harbours and estuarine creeks. Our services include:

- Survey scope and design.
- Phase I and extended Phase I habitat surveys.
- Intertidal biotope mapping, including aerial surveys utilising fixed-wing and multi-rotor Unmanned Aerial Vehicles (UAVs).
- Photogrammetry, habitat scanning and 3D model creation.
- Sediment sampling for infauna, PSD and sediment chemistry analysis.
- Taxonomic identification utilising an NMBAQC assured laboratory.
- Data analysis and interpretation using statistical methods.

### DELIVERABLES AND OUTPUTS

Survey outputs are designed to meet our clients' needs, whilst also ensuring they meet regulatory requirements. Outputs typically comprise baseline survey reports and Phase I habitat assessments that are used to inform:

- Environmental Impact Assessments (EIA), EIA screening and scoping.
- Habitats Regulations Appraisal (HRA).
- Marine licence applications.
- Other consent documents and planning applications.



Intertidal Phase I survey



Ecological diver

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