

Bailiwick Eelgrass Exploration Project



The signals of condition:
evaluating the status of eelgrass health across
the Bailiwick through citizen science

Introduction

The Bailiwick Eelgrass Exploration Project (BEEP) aims to record and raise awareness of eelgrass (also known as seagrass) across the Bailiwick of Guernsey, through citizen science. This includes common eelgrass (*Zostera marina*) and dwarf eelgrass (*Z. noltii*) species.

BEEP is a volunteer led initiative setup in 2019 by the Alderney Wildlife Trust, La Societe Guernesiaise, Biodiversity Partnership and Guernsey Biological Records Centre, supported by Seasearch.

Eelgrass is a terrestrial plant adapted to live in the marine environment.



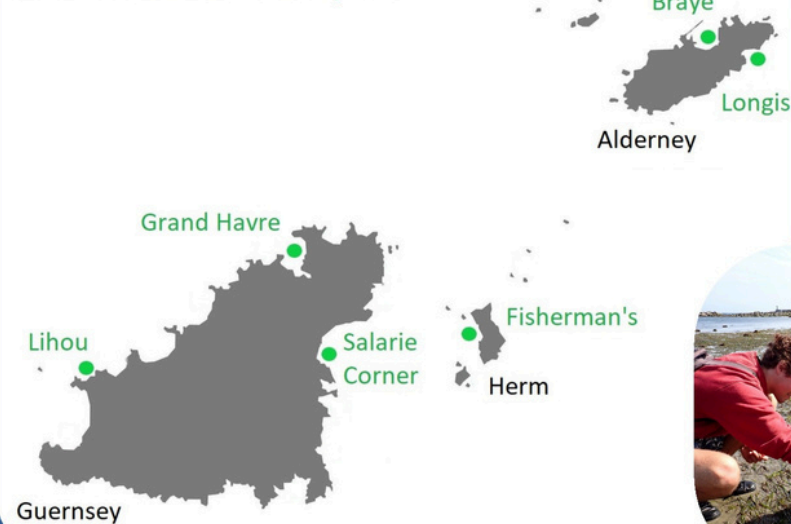
Photograph of common eelgrass (*Z. marina*).

Methods

From 2024-2027, BEEP volunteers are undertaking a range of field-based surveys with local communities. The aim is to evaluate the health of a number of key eelgrass beds across the Bailiwick, to provide appropriate evidence-led conservation recommendations. Surveys include:

- Plant morphometrics
- Carbon stock estimates
- Seasearch surveys
- Seawater parameter monitoring
- Marine invasive species recording

Condition assessment survey sites



Map of survey sites across the Bailiwick.



BEEP volunteers recording eelgrass.

Initial results

Eelgrass plant morphometrics (number of shoots and length of blades) and carbon stock levels recorded in the intertidal zones of selected eelgrass beds across the Bailiwick show some variability.

Fig 1. Average number of *Z. marina* shoots per eelgrass bed, 2024.

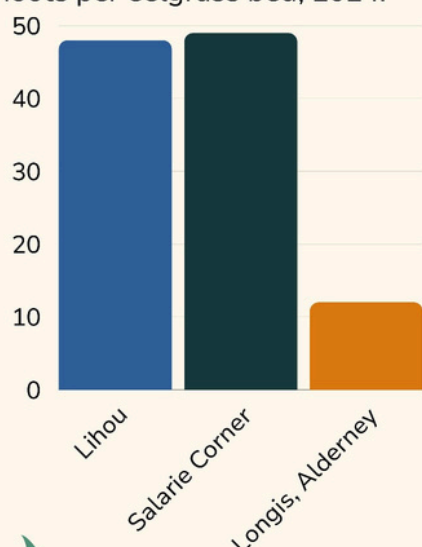


Fig 2. Average length of *Z. marina* blades (cm) per eelgrass bed, 2024.

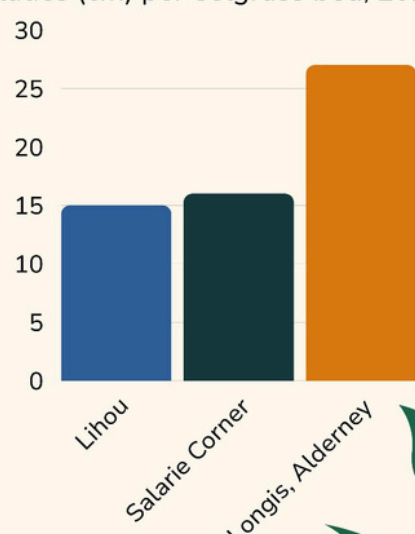
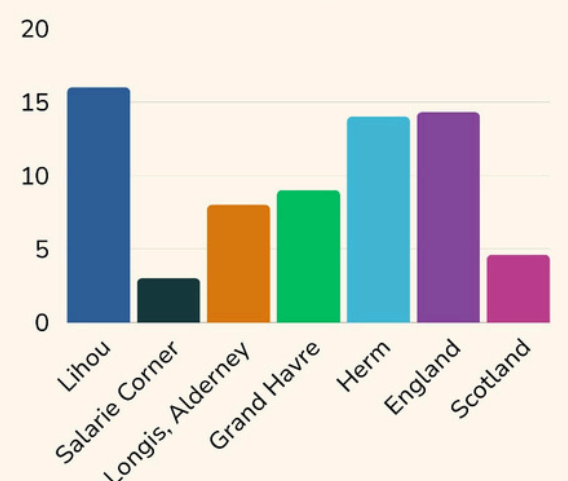


Fig 3. Average carbon stock (MgC/Ha (top 10 cm)) per *Z. marina* bed.



N.B. England info: Green et al., 2018. Scotland info: Portourogrou et al., 2021.



By Dr Mel Broadhurst-Allen on behalf of BEEP volunteers and partners.

Contact: marine@alderneywildlife.org or check out: <https://societe.org.gg/wp/beep/>