

Biodiversity enhancement of tidal lagoons using seagrass restoration

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Rationale

This project will determine the most appropriate and effective means of mitigating and offsetting tidal lagoon interactions with seagrass. Both UK seagrass species (*Zostera marina* and *Zostera noltii*) exist within the locations of future tidal lagoons proposed by Tidal Lagoon Power. In order to manage the impacts of these future developments TLP may need to relocate and/or offset seagrass loss. TLP has also proposed the inclusion of seagrass meadow establishment as a means of biodiversity enhancement within the proposed Swansea Bay lagoon.

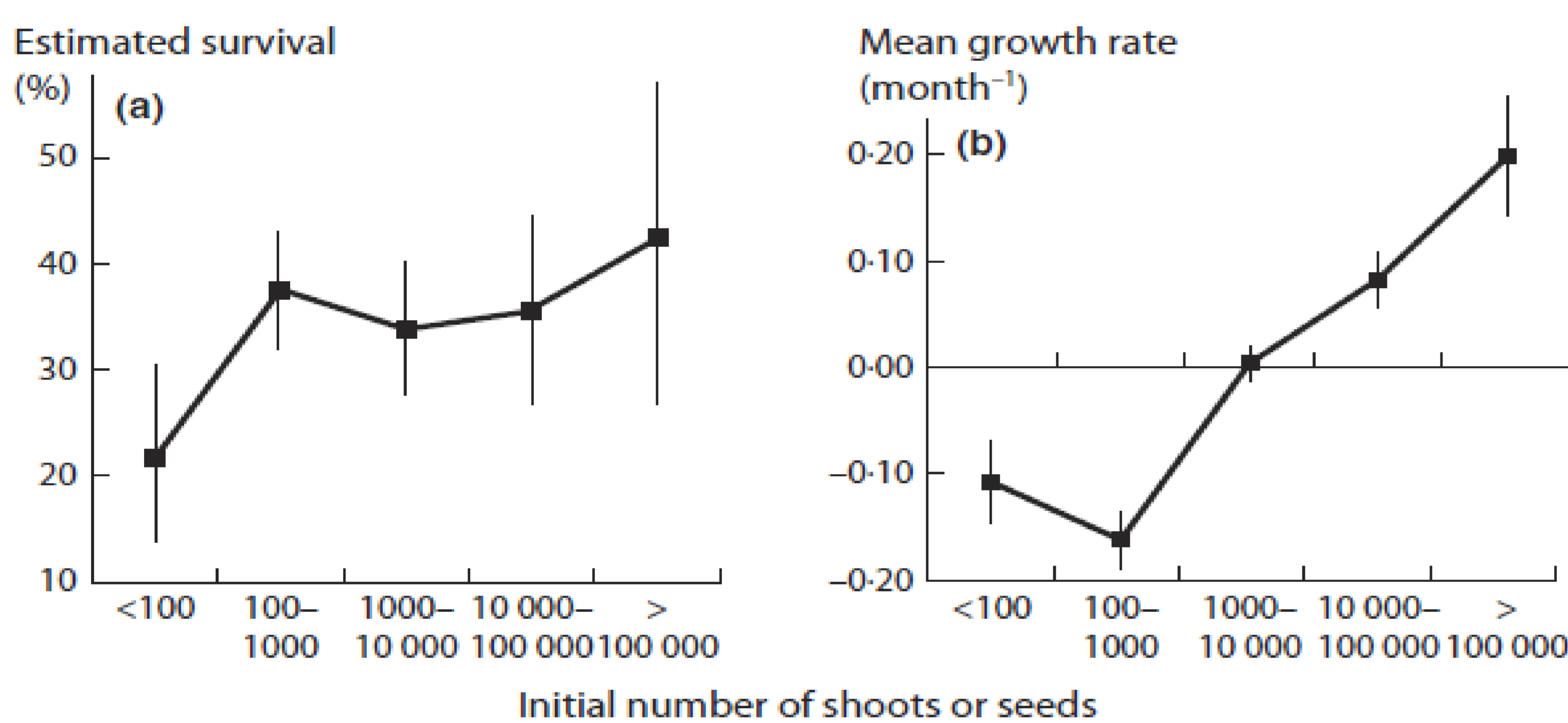
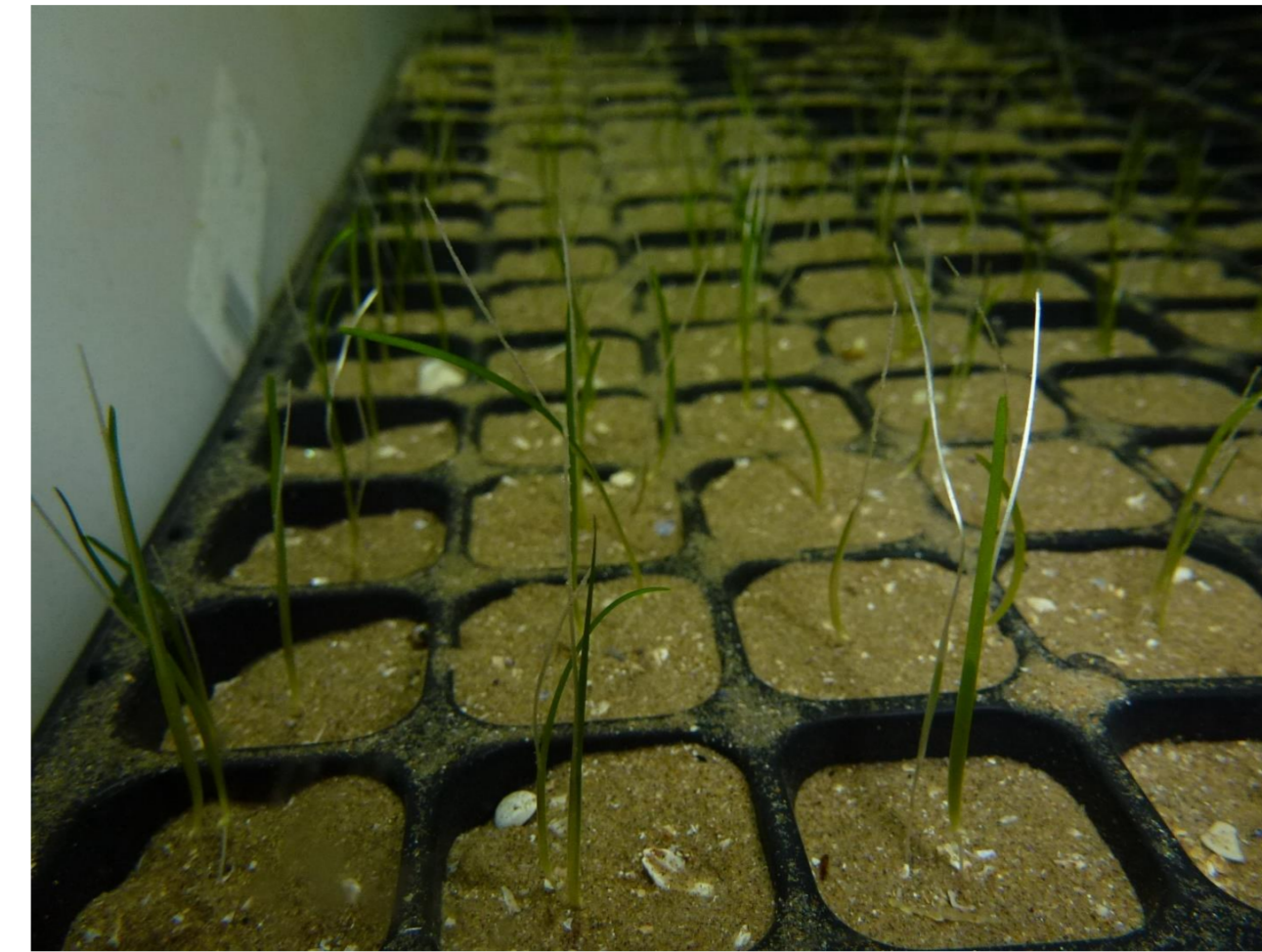


Figure 1. Influence of restoration scale on seagrass survival and growth (From Katwijk et al 2016 JAE)

A recent review of all known restoration efforts highlights the need for restoration to occur at sufficient scales in order to facilitate positive feedbacks and to spread the chances of success.

Activities & Outcomes

- Trialling a series of different methods for seagrass restoration appropriate to the needs of TLP. It is proposed that this will incorporate a mix of seed based restoration mixed with relocation of small seagrass fragments.
- Establish the beginning of a successful seagrass restoration demonstration in Wales.
- Develop a series of recommendations for TLP as to the most appropriate means of offsetting seagrass loss and enhancing biodiversity using seagrass establishment.



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