Effect of Atmospheric Heatwaves on Reflectance and Pigment Composition of Intertidal *Nanozostera noltei* – Draft

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Abstract

To be written

# 1. Introduction

Intertidal seagrasses play a crucial role in the ecosystem by providing habitats and feeding grounds for various marine species, supporting rich marine biodiversity, and contributing significantly to primary production and carbon sequestration (Sousa et al., 2019; Unsworth et al., 2022). These seagrasses are essential in maintaining the health of coastal ecosystems by stabilizing sediments, filtering water, and serving as indicators of environmental changes due to their sensitivity to water quality variations (Zoffoli et al., 2021). The interactions between seagrass meadows and their associated herbivores further enhance the delivery of ecosystem services, including coastal protection and fisheries support (Gardner and Finlayson, 2018; Jankowska et al., 2019; Zoffoli et al., 2023). Understanding and preserving these ecosystems are vital for maintaining the biodiversity and productivity of coastal regions (Ramesh and Mohanraju, 2020; Scott et al., 2018).

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