

## Description of Additional Supplementary Files

**File name:** Supplementary Dataset 1

**Description:** Climatology, Meteorology, Oceanography of Potter Cove 2014-2017 (source data of Figure 2)

**File name:** Supplementary Dataset 2

**Description:** Benthic total oxygen exchange, pigments and microalgal biomass of 3 sites in Potter Cove 2015-2016 (source data of Figure 3)

**File name:** Supplementary Dataset 3

**Description:** Multivariate dataset of benthic parameters of 3 sites in Potter Cove 2015-2016 (source data of Figure 4 and Supplementary Table 4)

**File name:** Supplementary Dataset 4

**Description:** Photosynthetic Active Radiation at 3 sites in Potter Cove 2015-2016 (source data of Supplementary Figure 1)

**File name:** Supplementary Dataset 5

**Description:** Average biomass in benthic biotic compartments at 3 sites in Potter Cove 2015-2016 (source data of Supplementary Figure 2)

**File name:** Supplementary Dataset 6

**Description:** Individual and total biomass and density of *Laternula elliptica* at 3 sites in Potter Cove 2015-2016 (source data of Supplementary Figure 3)

**File name:** Supplementary Dataset 7

**Description:** Median grain size, silt fraction and porosity at 3 sites in Potter Cove 2015-2016 (source data of Supplementary Table 2).