

**Figure S1**: Calibration of a smooth function (non-parametric relationship), between the green algal abundance and the radiometric index NDVI using the red and near-infrared bands. **(a)** Fitted relationship for the stations located in the fringing zone (n= 57; variance explained by the model = 46.9%; GCV = 2.22), without any radiance correction. **(b)** Variation in mean algal abundances () over time, from 2017 to 2019, based on Sentinel-2 images, using the two different methodologies applied (unsupervised vs supervised), for the fringing area. Arrows marks the dates of reported stranding events on the PGD beach.

**Figure S2**: Calibration of a smooth function (non-parametric relationship), between the green algal abundance and the radiometric index NDVI. **(a)** Fitted relationship for the stations located in the fringing zone (n= 57; variance = 0.469; GCV = 2.22), without any radiance correction. **(b)**Variation in mean algal abundances () over time, from 2017 to 2019, based on Sentinel-2 images, using the two different methodologies applied (unsupervised vs supervised), for the fringing area. Arrows marks the dates of reported stranding events on the PGD beach.