

Seagrass canopy density



Lighthouse reef (Belize, Caribbean)

Product description

- Spatial maps of seagrass canopy density
- Coverage and changes in seagrass beds

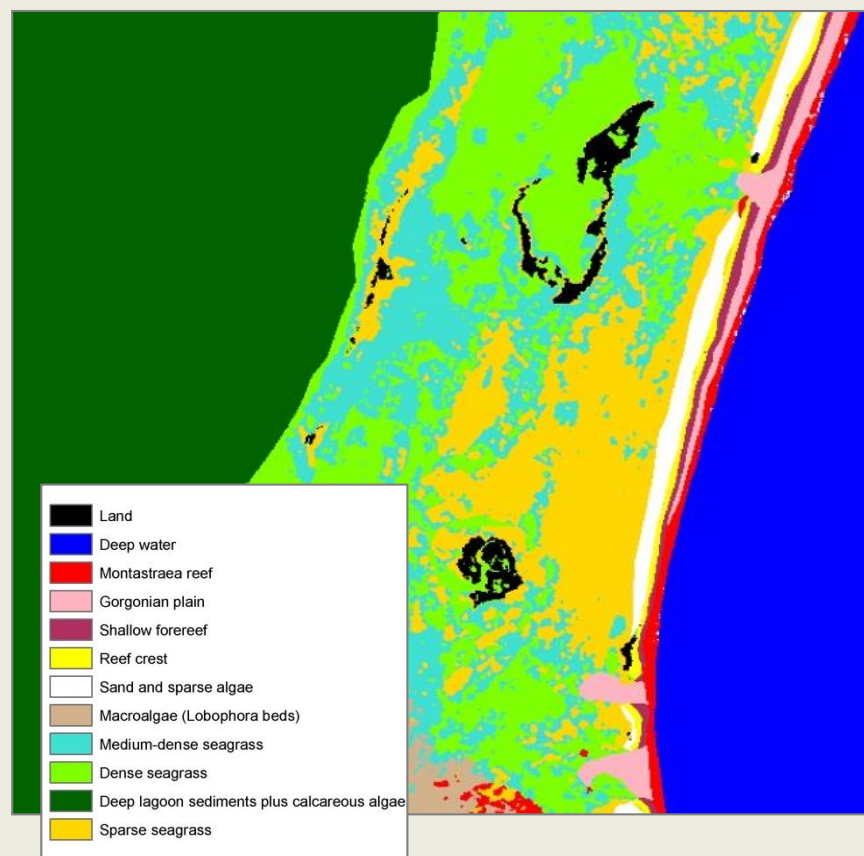
Spatial extent and resolution

- Local to regional
- Meter scale

Benefits

- Permanent monitoring of the state and extent of seagrass/seaweeds and any impact caused

Coral Reef habitat maps



Product description

- Spatial maps of coral reef habitats
- Fore-reef, back-reef, other ecological zones including and high and low coral cover areas

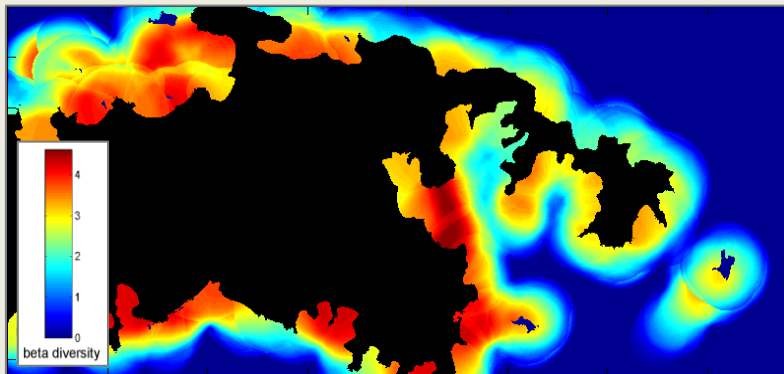
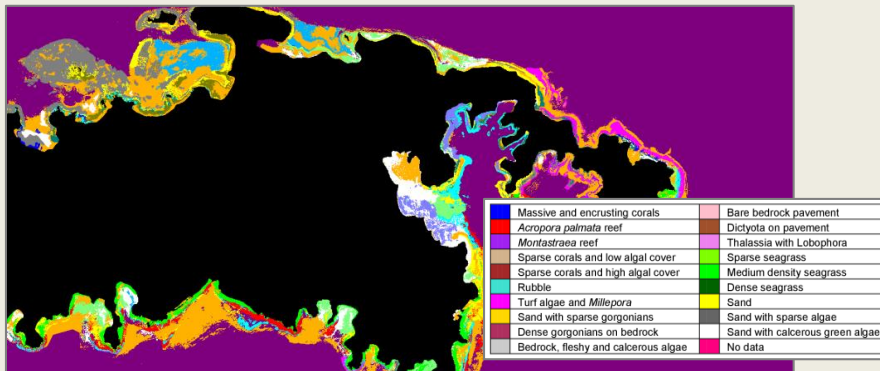
Spatial extent and resolution

- Local to regional
- Meter scale

Benefits

- Permanent monitoring of the state and extent of coral reef habitats and any impact caused

Shallow water biodiversity hotspots



Product description

- Biodiversity map of shallow water habitats

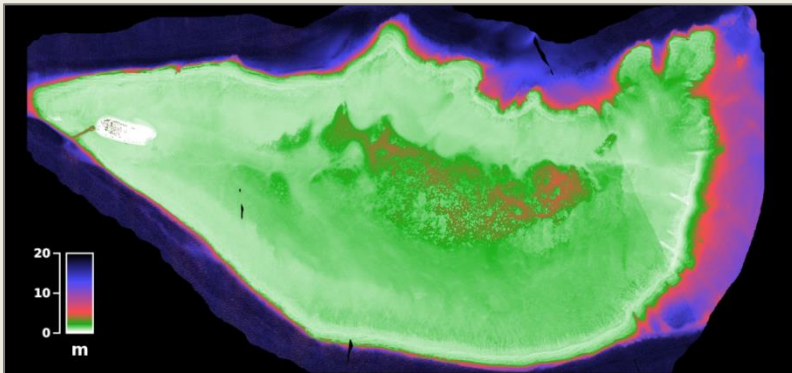
Spatial extent and resolution

- Local to regional
- Meter scale

Benefits

- Identification and permanent monitoring of hot spots at risk

Shallow water bathymetry



Product description

- Map of water depth (bathymetry)

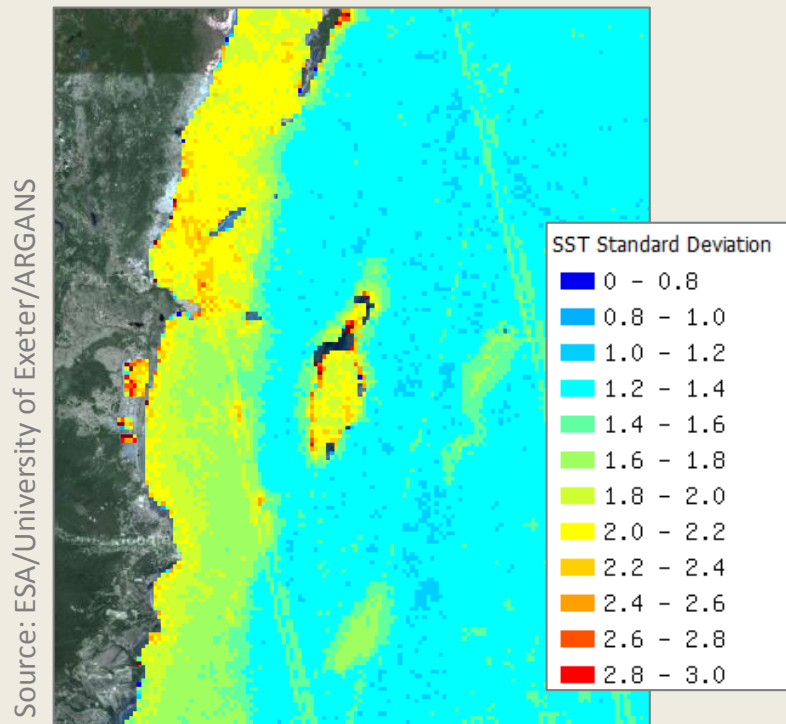
Spatial extent and resolution

- Local to regional
- Meter scale

Benefits

- Characterisation of bathymetry as input for e.g. modelling waste water dispersion

Sea surface temperature maps



Sea Surface Temperature Standard
Deviation

Product description

- Maps of sea surface temperature climatology and anomalies
- Elevated temperature is a key stressor for corals, leading to coral bleaching events, coral mortality and community shifts on reefs

Spatial extent and resolution

- Regional
- Kilometre scale

Benefits

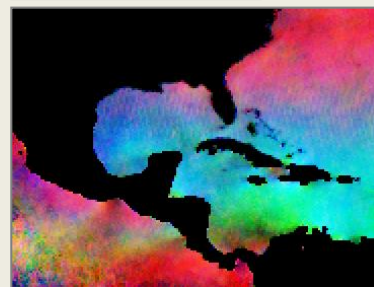
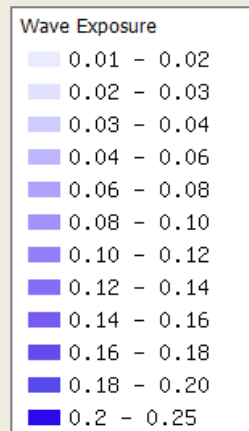
- Identification of waste water spills caused by processing facility

Wave exposure

Source: ESA/University of Exeter/ARGANS



Wave exposure J/m^3



Averaged directional
wind speed

Product description

- Coastal wave exposure can be calculated from fetch, wind speed and bathymetry, all derived from EO data

Spatial extent and resolution

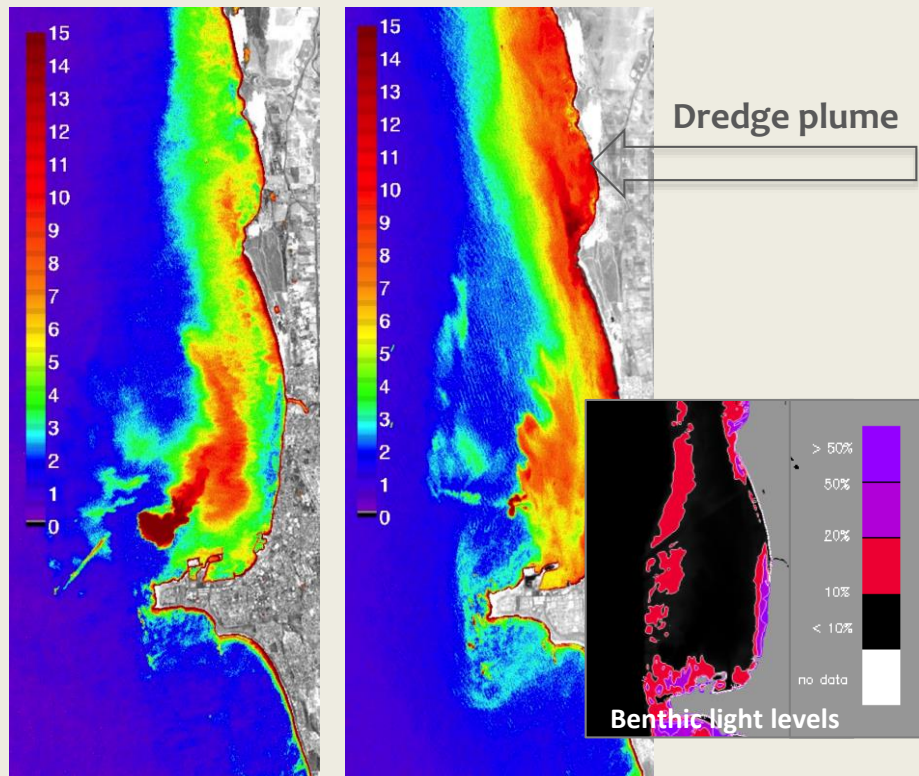
- Local to regional
- Meter scale

Benefits

- Coastal wave exposure to identify target areas for coastal protection

Dredge plume monitoring and benthic light

Source: P. Fearn, Curtin University, Western Australia



Western Australia, Geraldton Port development
(Ack. P. Fearn, Curtin University)

Product description

- Dredge plume monitoring and benthic light levels

Spatial extent and resolution

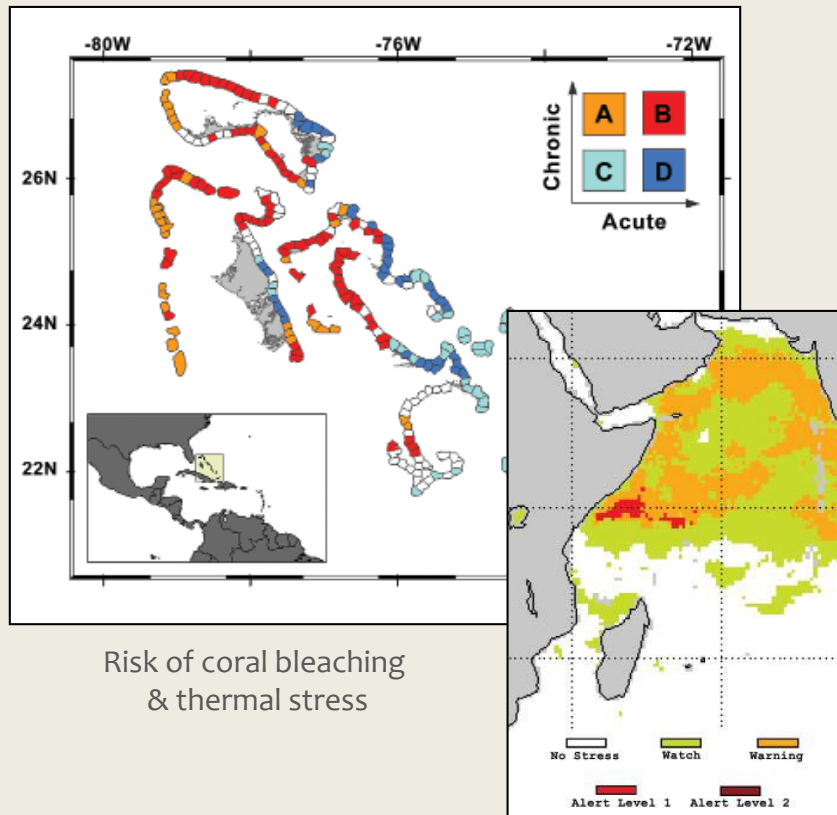
- Local to regional
- Tens of meters scale

Benefits

- Permanent monitoring of coastal dredge plumes

Thermal stress and regimes

Source: Mumby et al. (2011) *Ecol. Lett.* 14, 132-140



Product description

- Coral thermal stress and distribution of thermal stress regimes

Spatial extent and resolution

- Regional
- Kilometre scale (1 km and greater)

Benefits

- Determining potential impact of processing facility on near-shore environment