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A restoration and climate change resiliency monitoring program for coastal BC estuaries

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A restoration and climate change resiliency monitoring program for BC estuaries

PROGRAM OBJECTIVES

1. Assess vulnerability to sea-level rise
2. Monitor long-term estuarine health
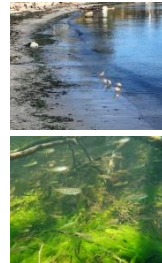3. Restore natural estuarine ecosystems
4. Build relationships

ASSESS SEA-LEVEL RESILIENCY

BC Estuary Monitoring Sites

Legend
- SLR Estuary

Bella Coola
Koeye
Asseek
Cluxewe
Quatse
Salmon
Englishman
Nanaimo
Cowichan
Seattle

Google Earth
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image Landsat / Copernicus
Data LDEO-Columbia, NSF, NOAA
300 km

- Install Rod Surface Elevation Tables (rSET fine scale elevation changes)
- Install Data Loggers (temperature, conductivity, water level)
- Apply MARS (Marsh Resilience to Sea-Level Rise) ranking tool (*Raposa et al., 2016*)

MONITOR ESTUARINE HEALTH

- Benthic macrofauna
- Marsh vegetation transects
- Coastal Waterbird Surveys
- Shorebird surveys
- Fish surveys, snorkel, seine
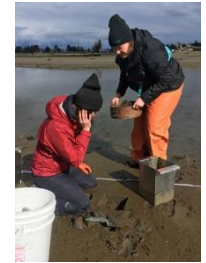
RESTORE ESTUARINE ECOSYSTEMS

- Remove dyke, berms
- Restore drainage channels
- Remove invasive plants
- Restore Lyngbye's sedge

Restore channels

Remove dyke

West Coast Conservation Land Management Program