



Mapping and Monitoring Lakes and Reservoirs with Satellite Observations

July 12, 14, & 19, 2022

11:00-12:30 EDT (UTC-4)

Aquatic vegetation (AV) provides habitat for numerous small invertebrate and fish species. Kelp forests, for example, are the dominant coastal ecosystem in temperate waters. The presence of AV in coastal waters is a normal occurrence, as it is an important component of the natural marine environment. Nevertheless, in the last decades, the appearance of increasingly abundant mats of certain floating species in other coastlines (i.e., Caribbean/Atlantic) has become a nuisance to local economies.

This training will combine basic information on the remote sensing of AVs, spectrometry of aquatic/coastal vegetation, and a demonstration of the NASA-funded Floating Forests citizen science tool.

Part 1: July 12, 2022

Trainers: Juan L. Torres-Pérez (Lead), Amber McCullum

- Background of coastal/marine submerged and floating aquatic vegetation species from temperate and tropical waters (seagrasses, kelps, Sargassum)
- Overview of primary satellites/sensors used to study aquatic vegetation remotely
- Spectral signatures of plants and algae
- Remote sensing of seagrass meadows
- Q&A

Part 2: July 14, 2022

Trainers: Juan L. Torres-Pérez (Lead), Amber McCullum

- The kelp forest: ecology and importance
- Remote sensing of the kelp forest
- Floating Forests: a citizen science tool for mapping the extent of kelp forests in the west coast of the US
- Q&A

Part 3: July 19, 2022

Trainers: Juan L. Torres-Pérez (Lead), Amber McCullum, Roy Armstrong (UPR-Mayaguez), William Hernández (UPR-Mayaguez)

- The Caribbean/Atlantic Sargassum patch
- Remote sensing and in situ sampling for mapping the extent and prevalence of the Sargassum patch in Puerto Rico
- The Sargassum Watch System (SaWS)
- Q&A



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