



*Spatial tools for conservation planning in remote spaces:
end of project workshop*



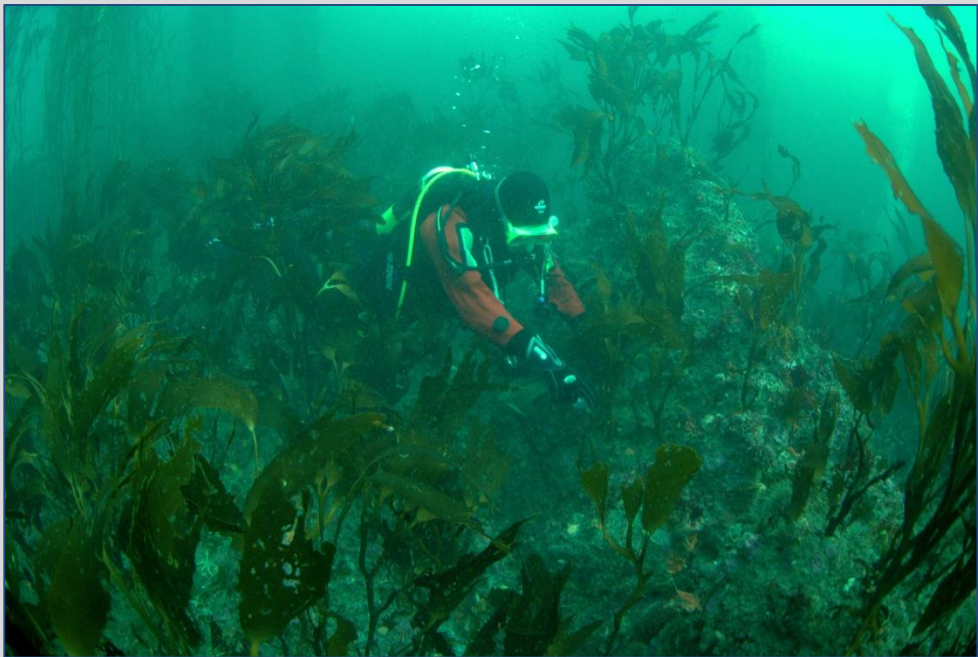
*Using remote sensing to better understand and manage
subtidal marine habitats*

Paul Brewin - SMSG

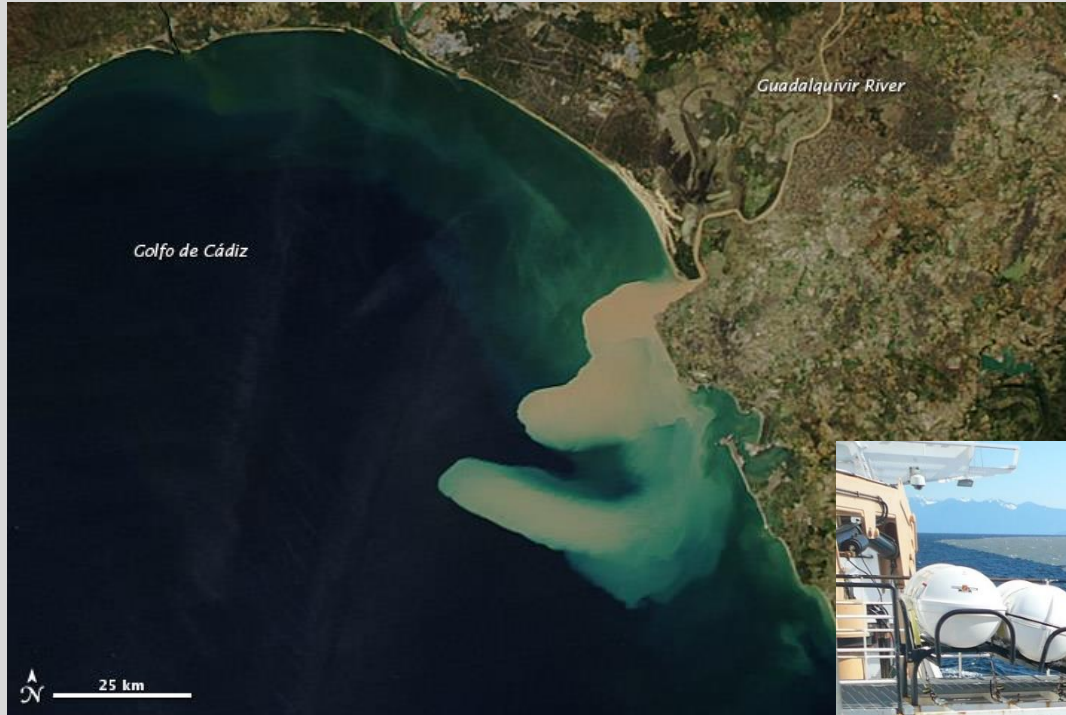


An underwater photograph showing a dense field of green seaweed in the foreground and middle ground. In the background, a diver is visible swimming towards the surface. The water is clear and blue, with light filtering down from above. The overall scene is a natural underwater environment.

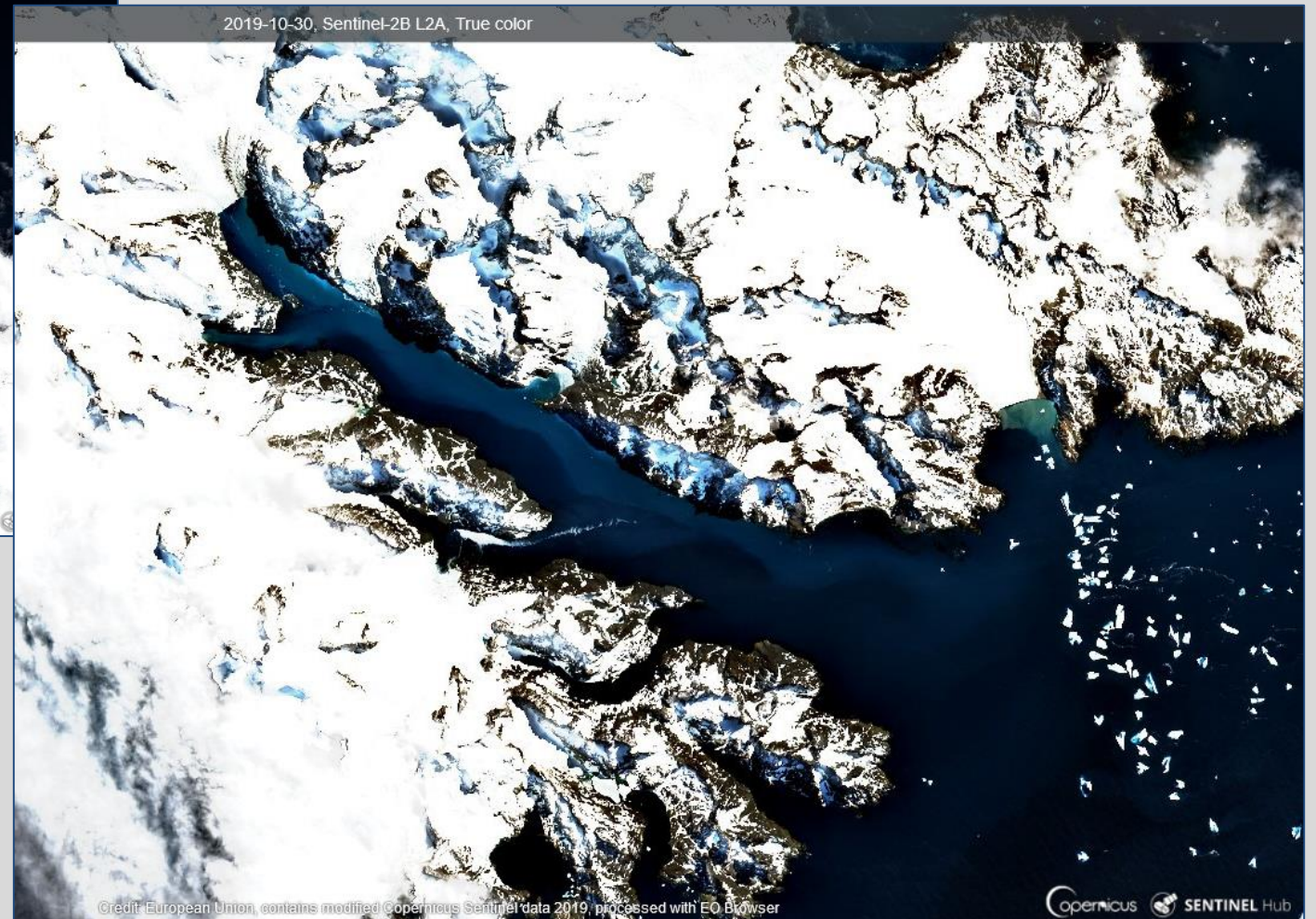
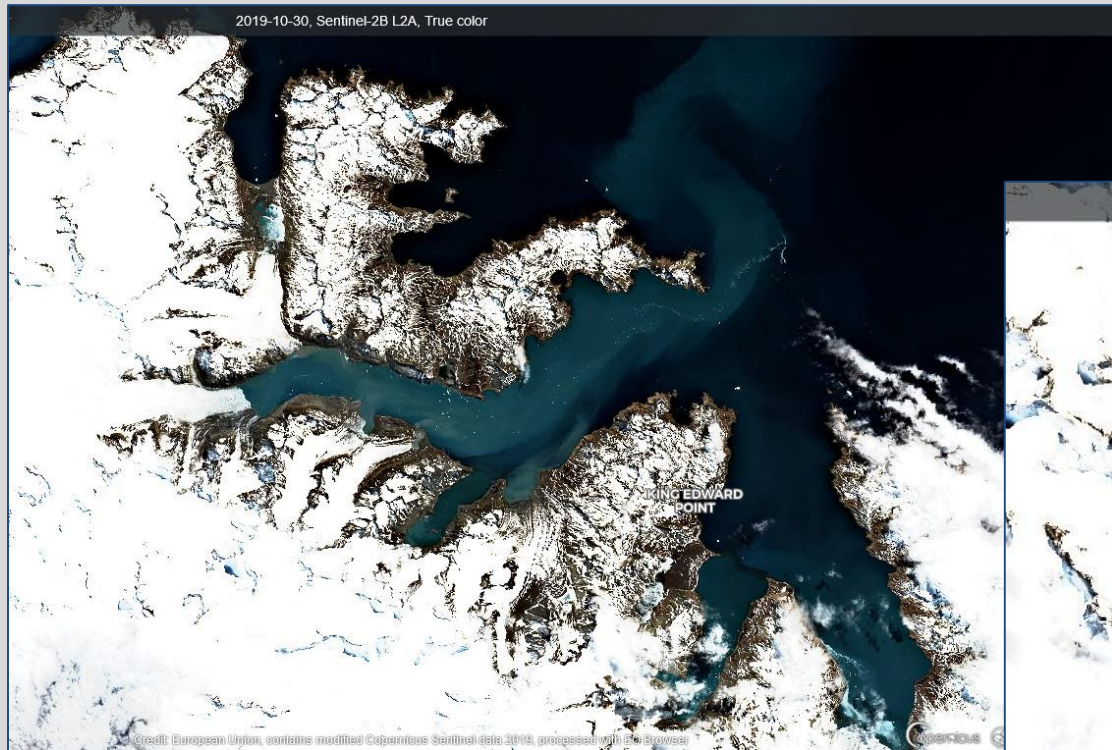
Question – what are the drivers of observed patterns?



Surface plume monitoring



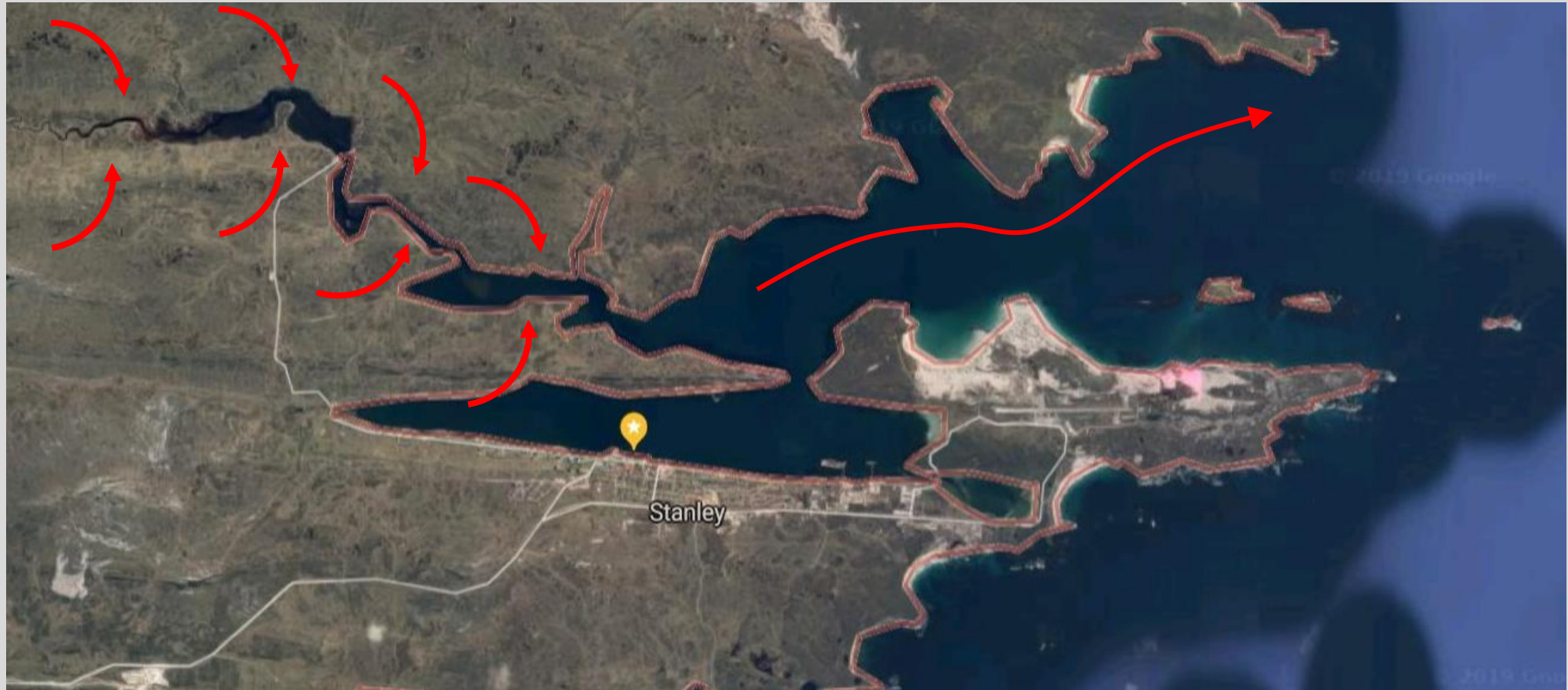
Glacial run-off



Falkland examples



Does peatland water runoff drive patterns of shallow marine communities?

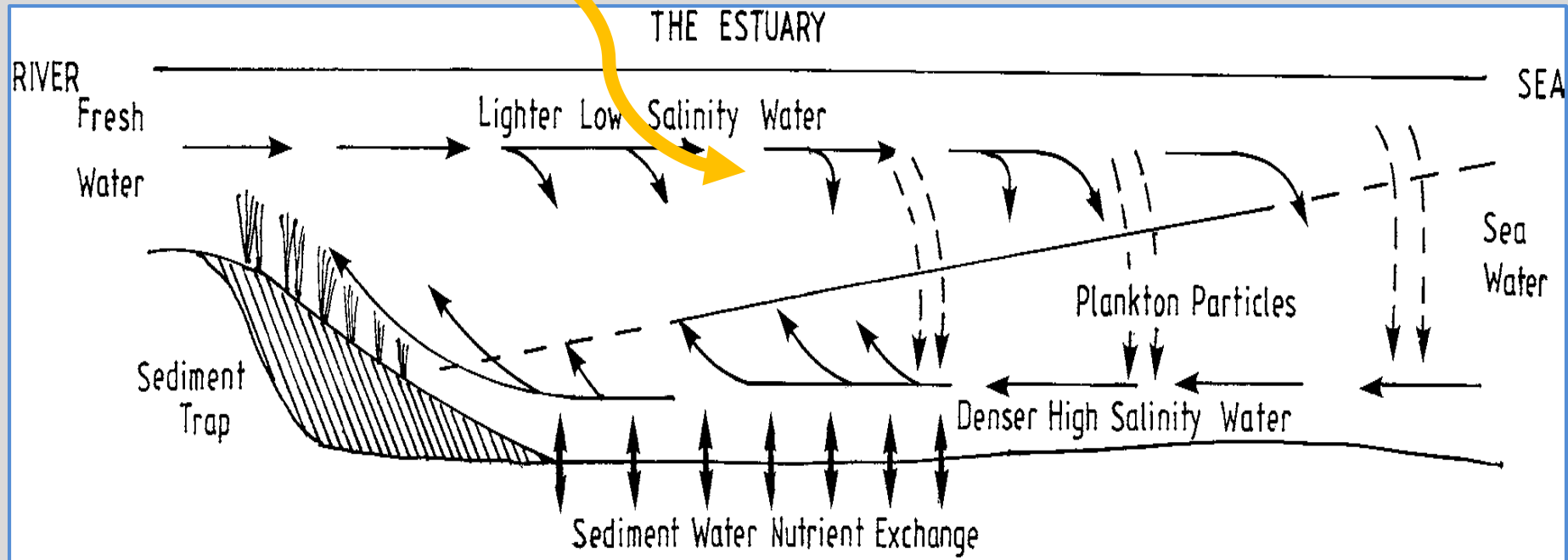


Freshwater carries with it:

- Suspended sediments
- High dissolved organics
- High humic substance

} UV Absorbing and fluorescing properties

- Dark stained water
- Reduced light field





Monitor distribution, frequency, strength?

- Drone – Multispectral/hyperspectral? Thermal? Fluorescence?
- Ground truthing using
 - CTD – moored arrays
 - CT surface transects
 - Water sampling

Benefits include;

- Understand baseline spatial/temporal variability
- Impact of land use modification
- Impact of climate change
- Drivers of biodiversity
- Linking ecosystem processes across land and sea
- Carbon cycle