

Spatial planning in archipelago waters by high spatial resolution remote sensing

HISPARES



**CENTRAL BALTIC
INTERREG IV A
PROGRAMME
2007–2013**



**EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND
INVESTING IN YOUR FUTURE**

Spatial planning on land

The background of the slide is an underwater photograph. The top half shows the water's surface with gentle ripples and a clear blue sky with some white clouds. The bottom half is submerged, showing a dense field of green and yellow seaweed or kelp. The text is overlaid on this image.

Spatial planning of coastal waters

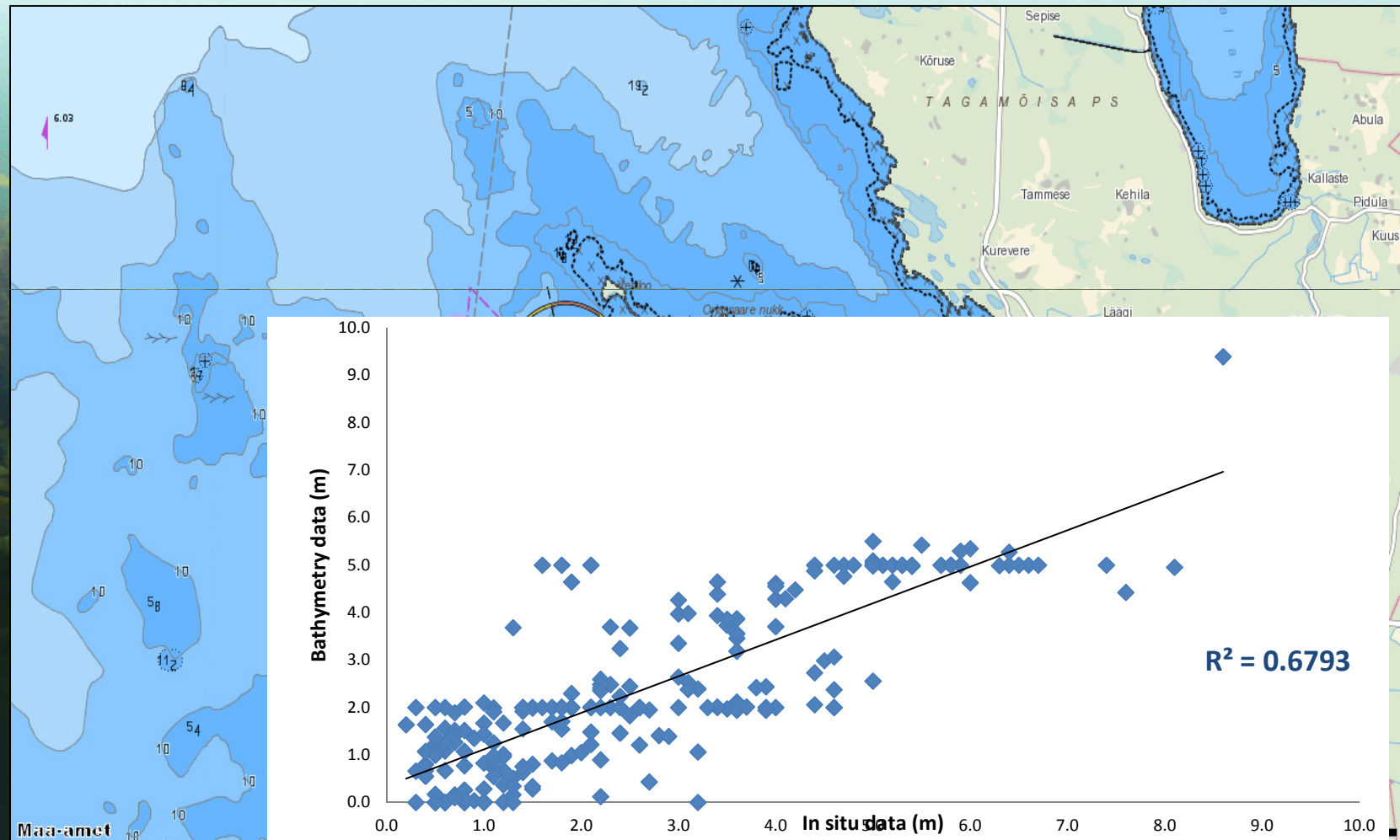
- * Transport**
- * Fisheries**
- * Tourism**
- * Energy**
- * Environment**

Spatial planning of coastal waters





Spatial planning of coastal waters



WHY?

The background of the slide is an underwater photograph. The top half shows the water surface with gentle ripples and a clear blue sky with some clouds. The bottom half is submerged, showing a dense field of green seaweed or kelp. The lighting is natural, coming from above, creating a serene underwater atmosphere.

- * Spatial planning decision making and environmental monitoring requires adequate amount of data.

- * Collecting the data with conventional methods is time consuming and expensive.

The background of the slide is an underwater photograph. The top half shows the water's surface with gentle ripples and a clear blue sky with some white clouds. The bottom half is submerged, showing a dense field of green and yellowish-brown seaweed or kelp. The word 'HISPARES' is written in large, bold, red capital letters in the center of the image.

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The main aim is to develop spatial planning tools for shallow coastal water areas using remote sensing, *in situ* data, spatial modelling and GIS techniques.

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Archipelago and Islands Sub-programme

Priority: Safe and healthy environment

Direction of Support: Raising environmental awareness (Finding new ways)



Estonian Marine
Institute
University of Tartu



Swedish Defence
Research Agency

HISPARES

2010-2012

Total budget 929 000 €

ERDF 753 650 €



Estonian Marine
Institute
University of Tartu



Swedish Defence
Research Agency

FINLAND

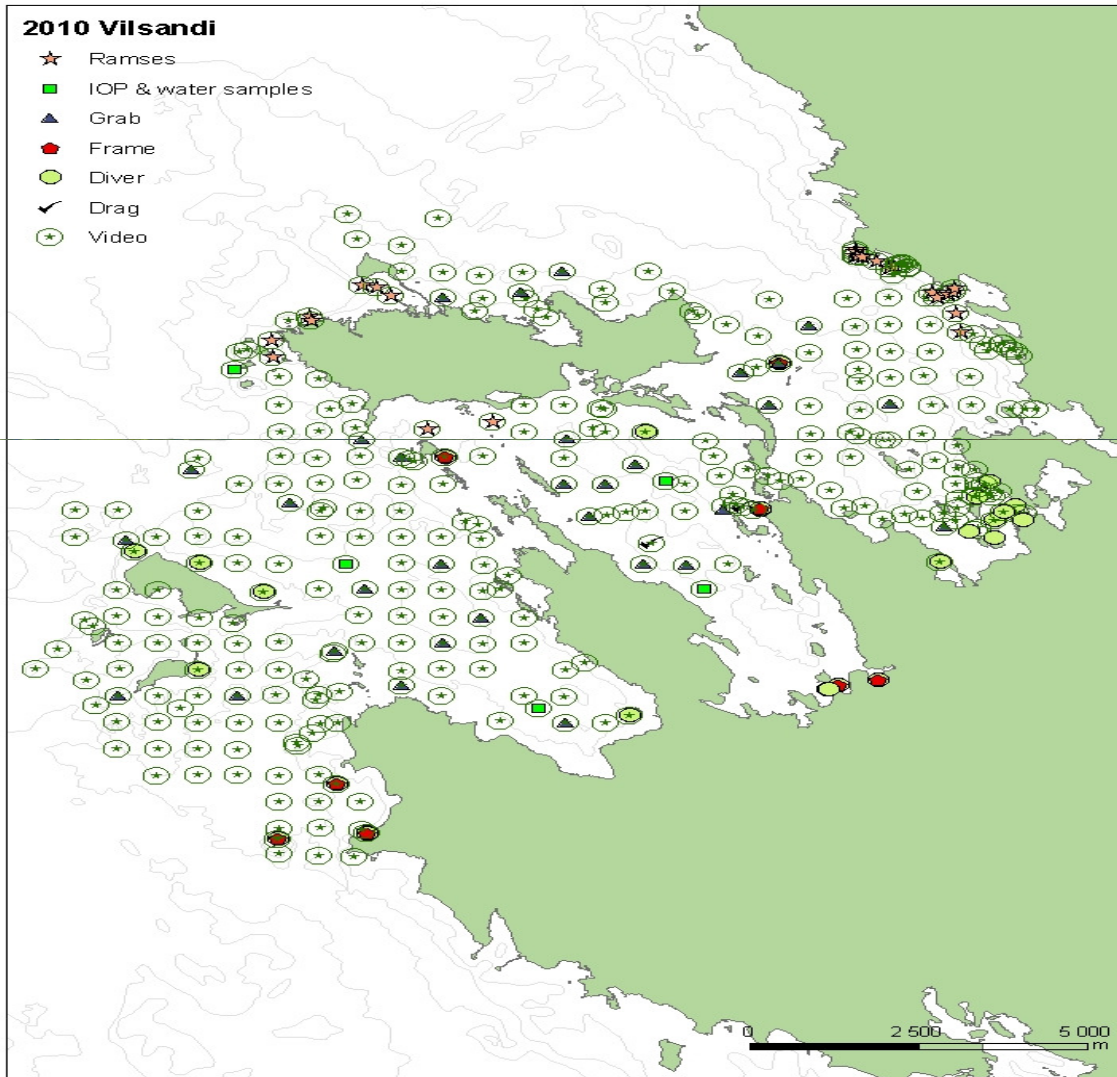
SWEDEN

ESTONIA

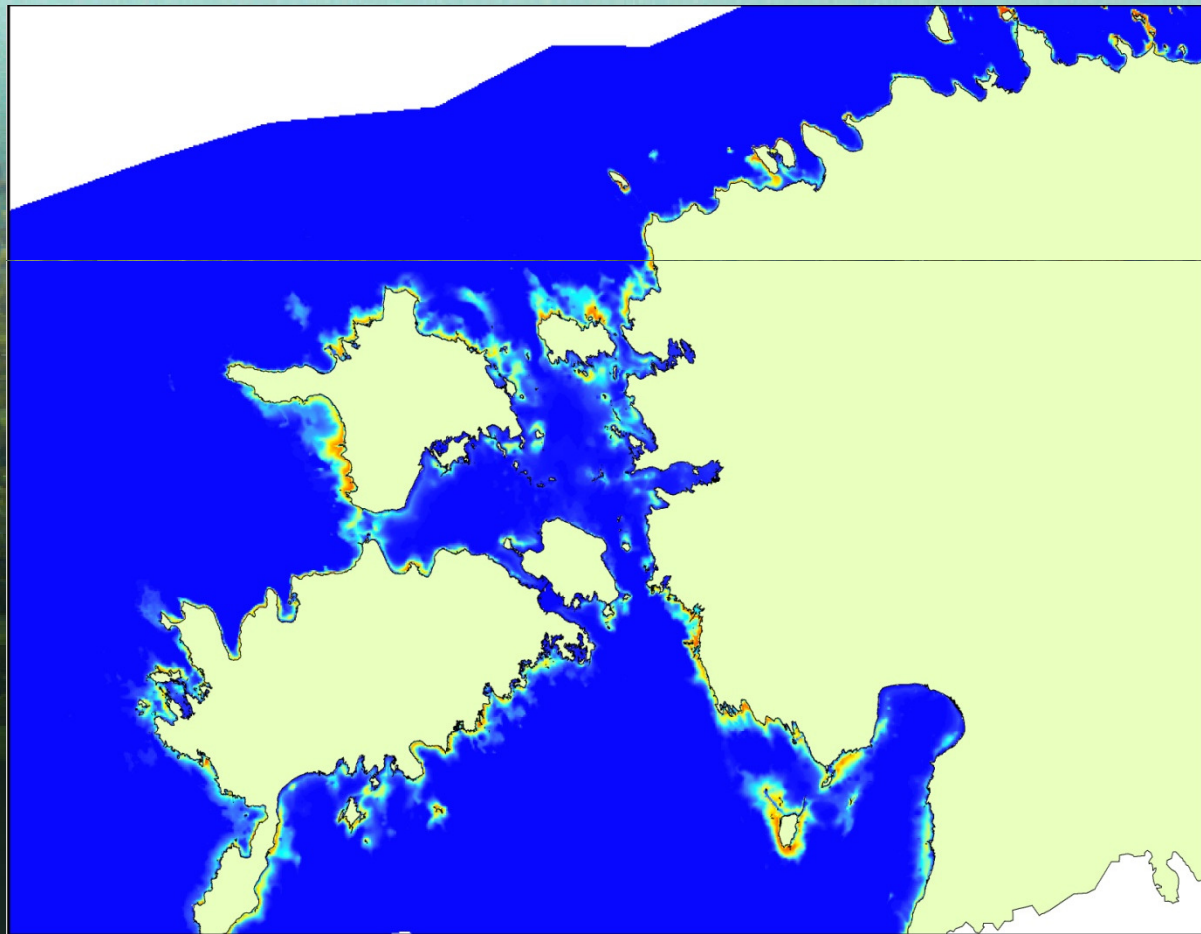
BALTIC
SEA



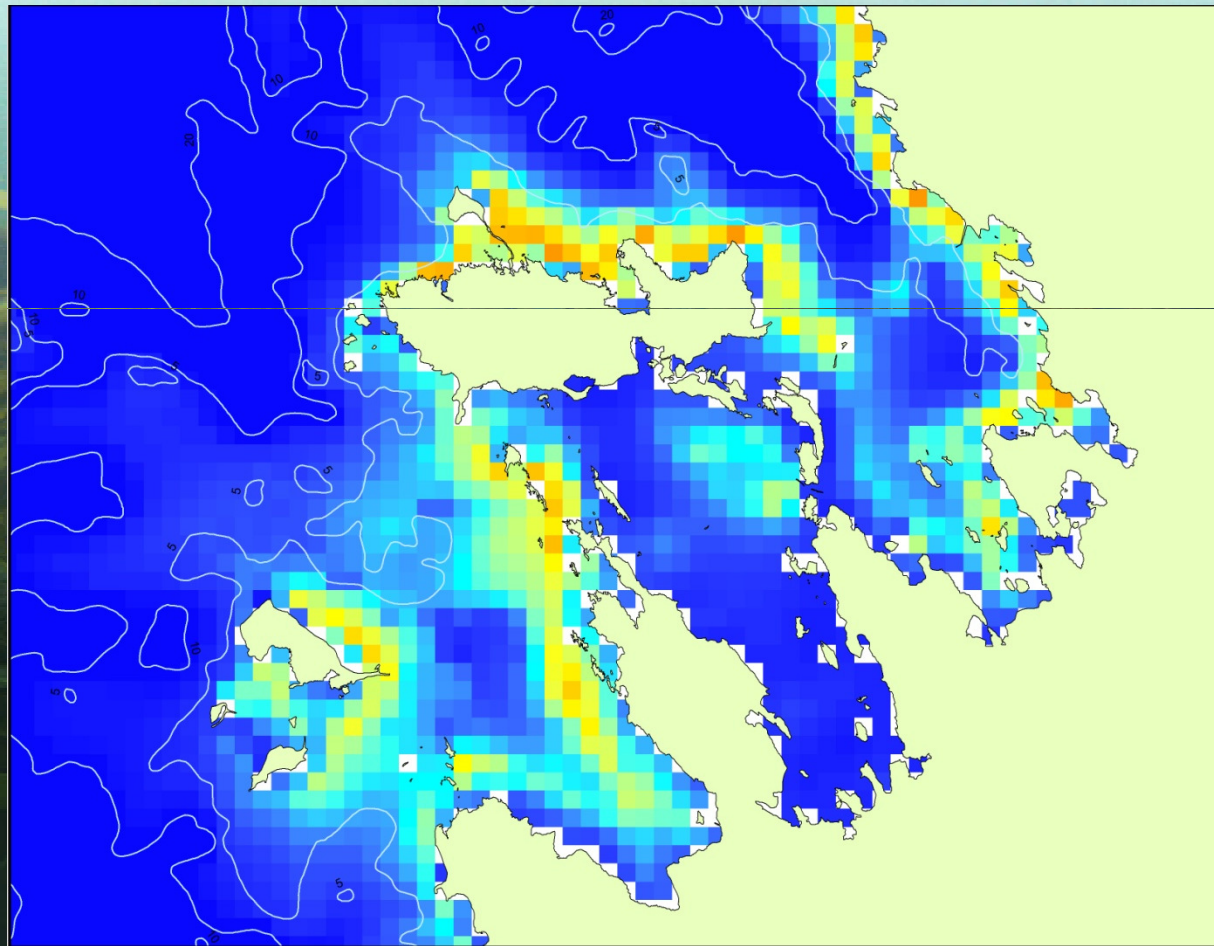
Vilsandi fieldwork



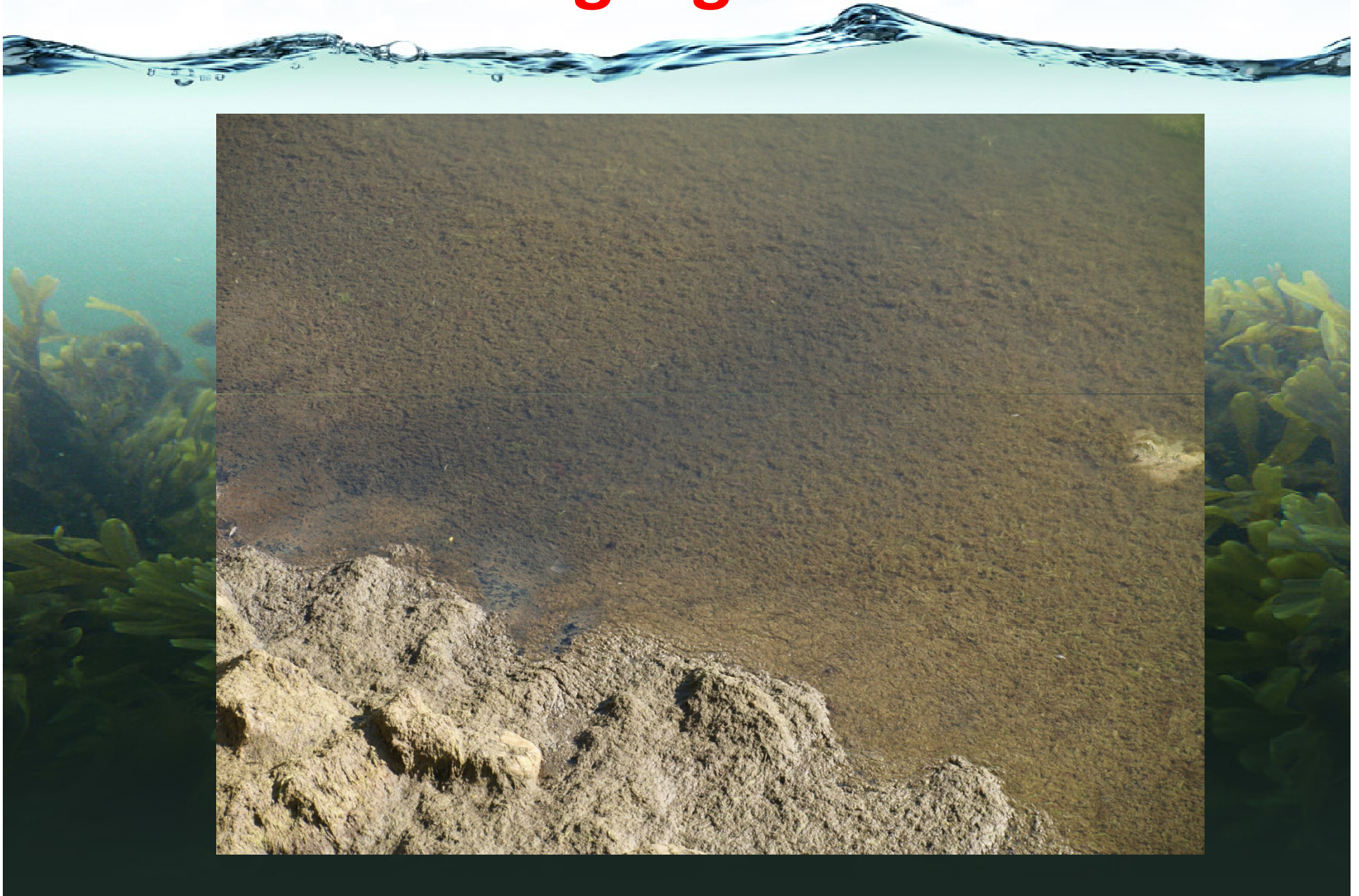
Modelled *Fucus vesiculosus* distribution



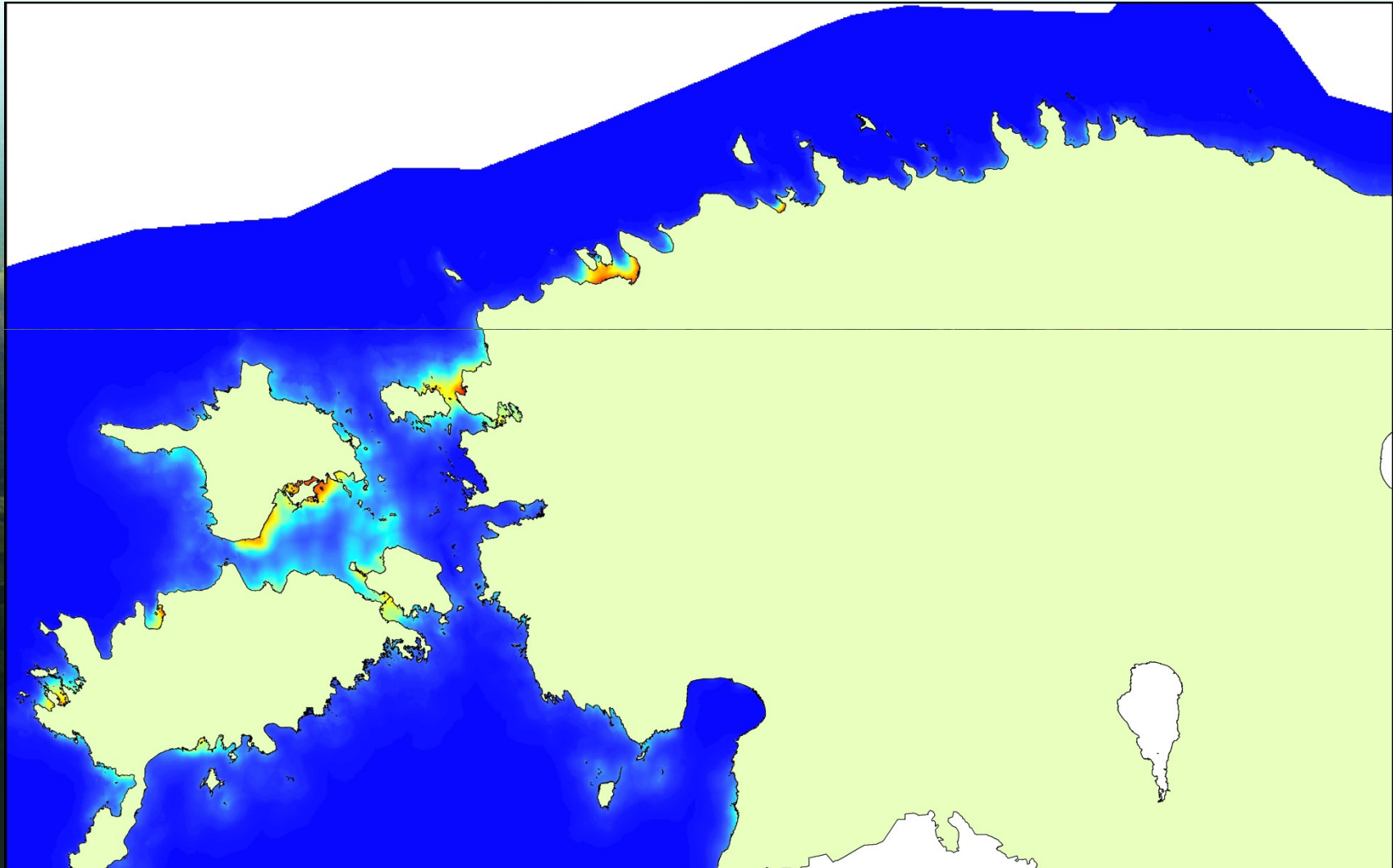
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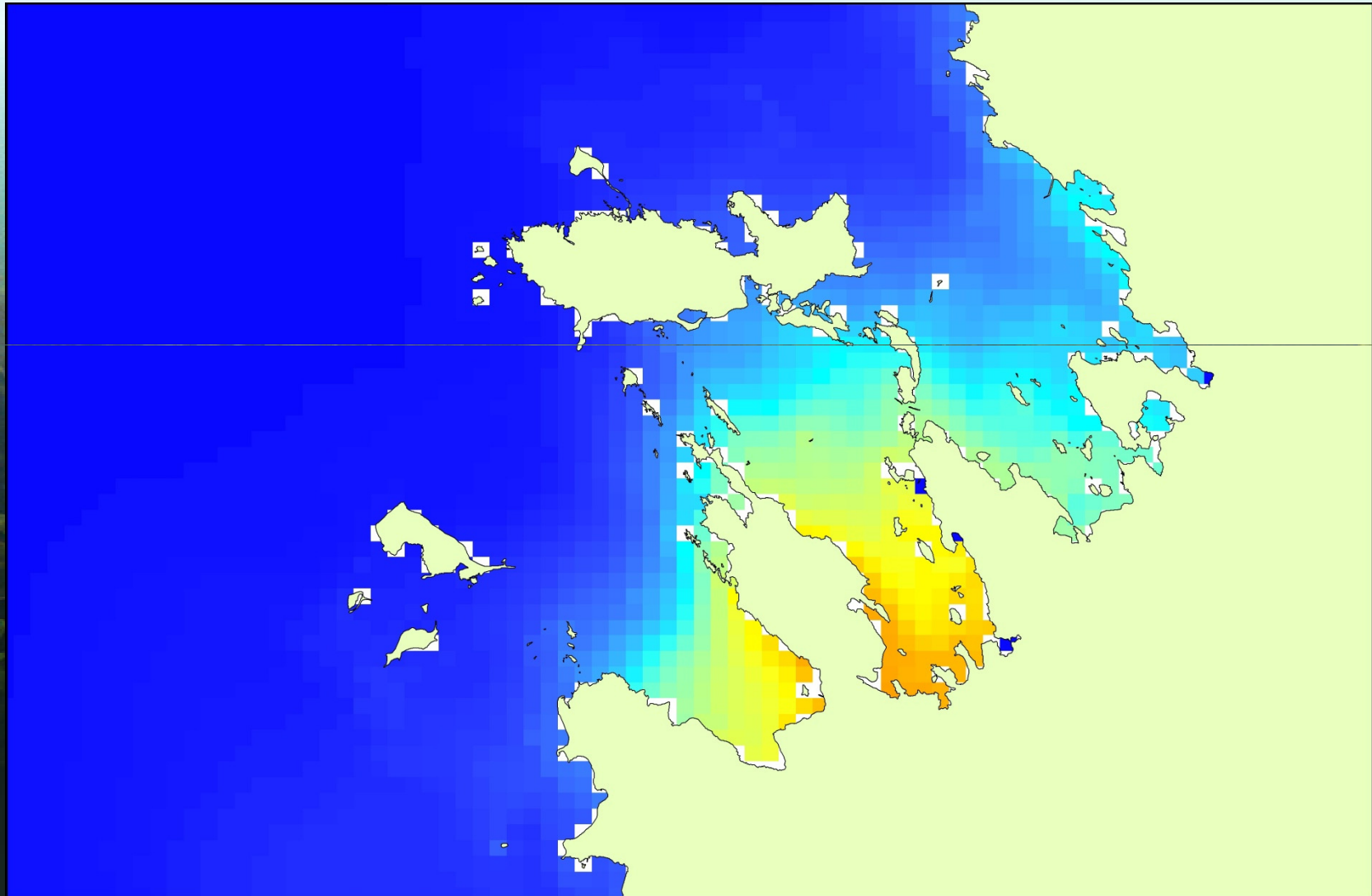
Drifting algal mats

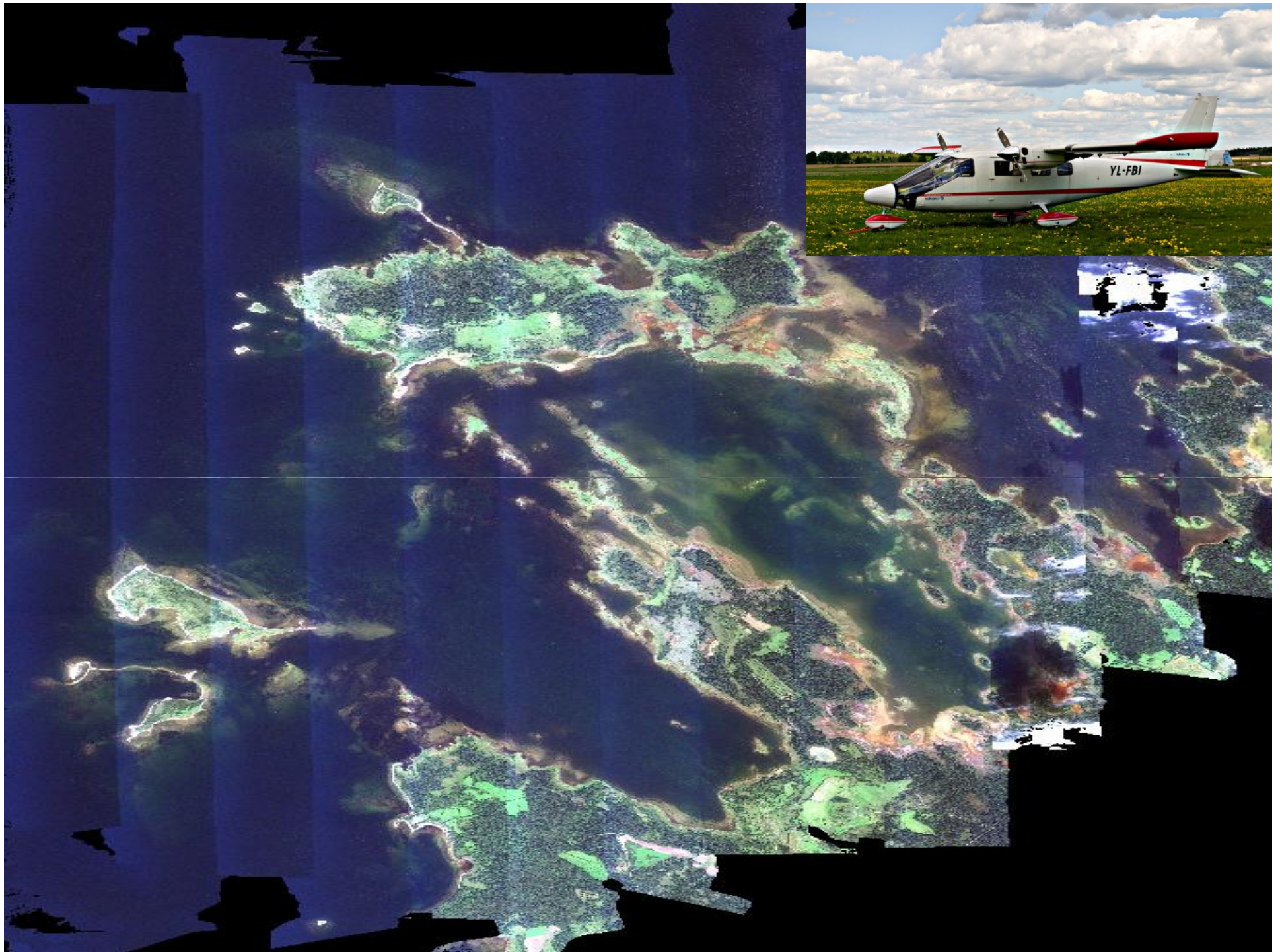


Potential locations of drifting mats



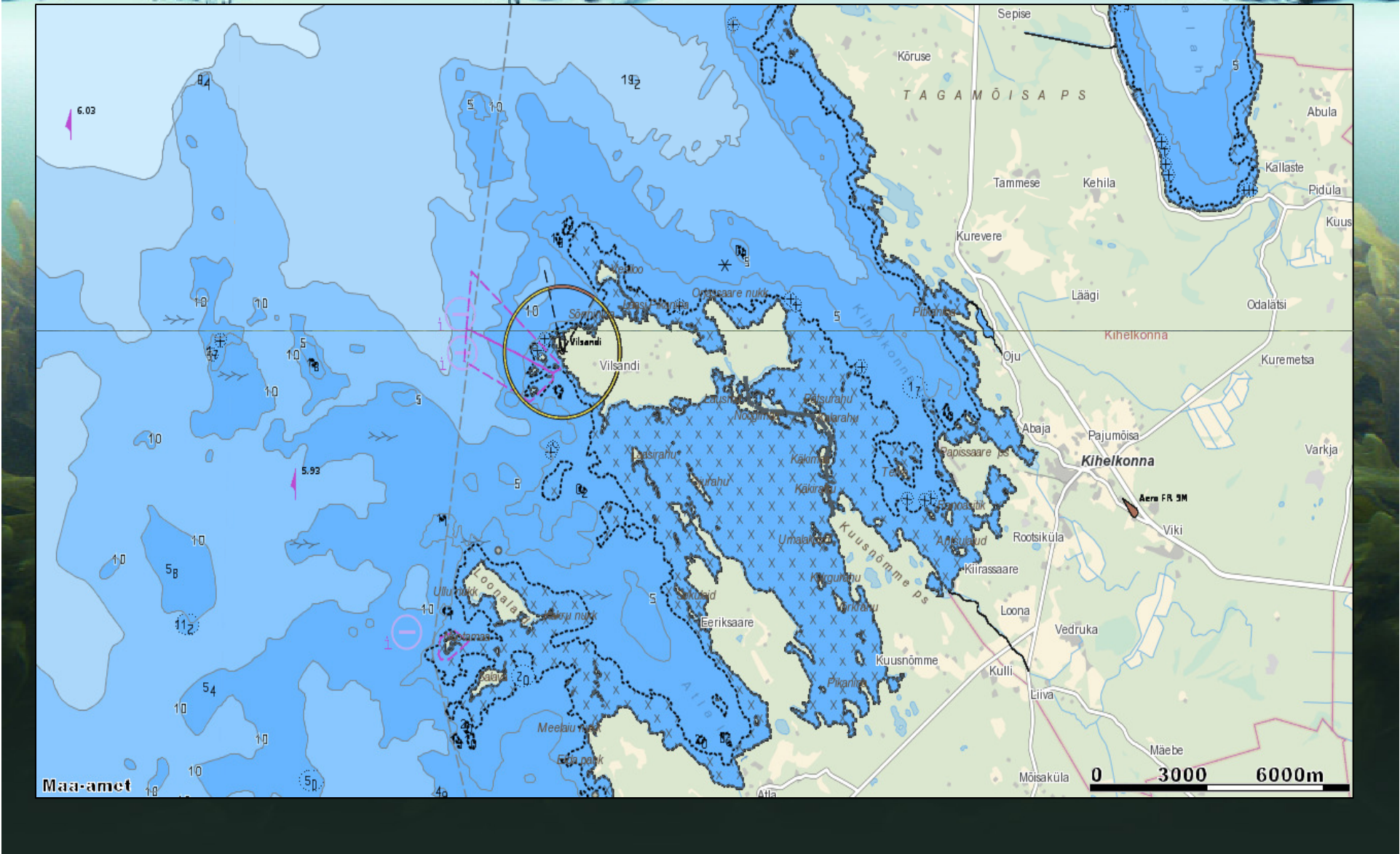
Potential locations of drifting mats



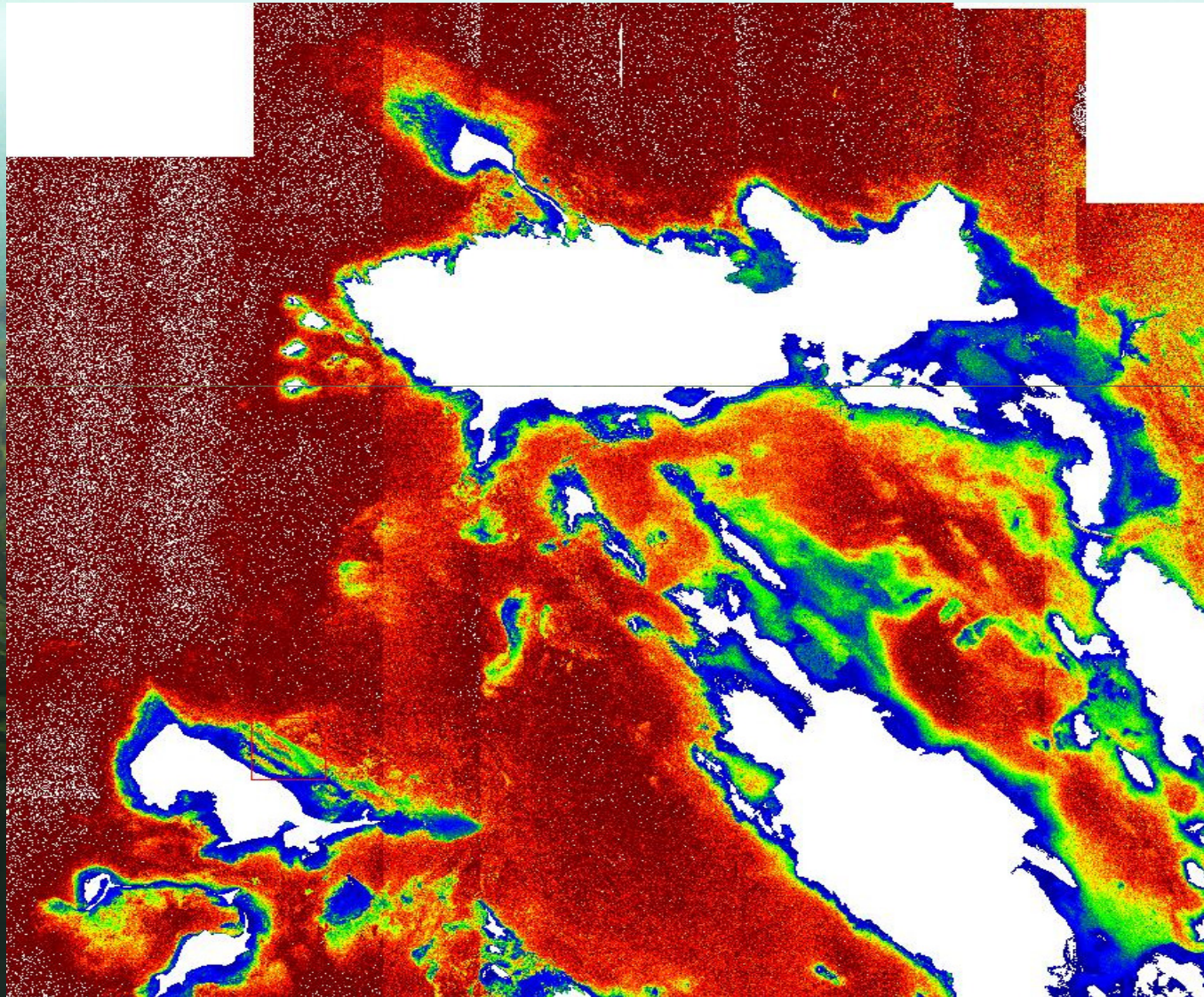




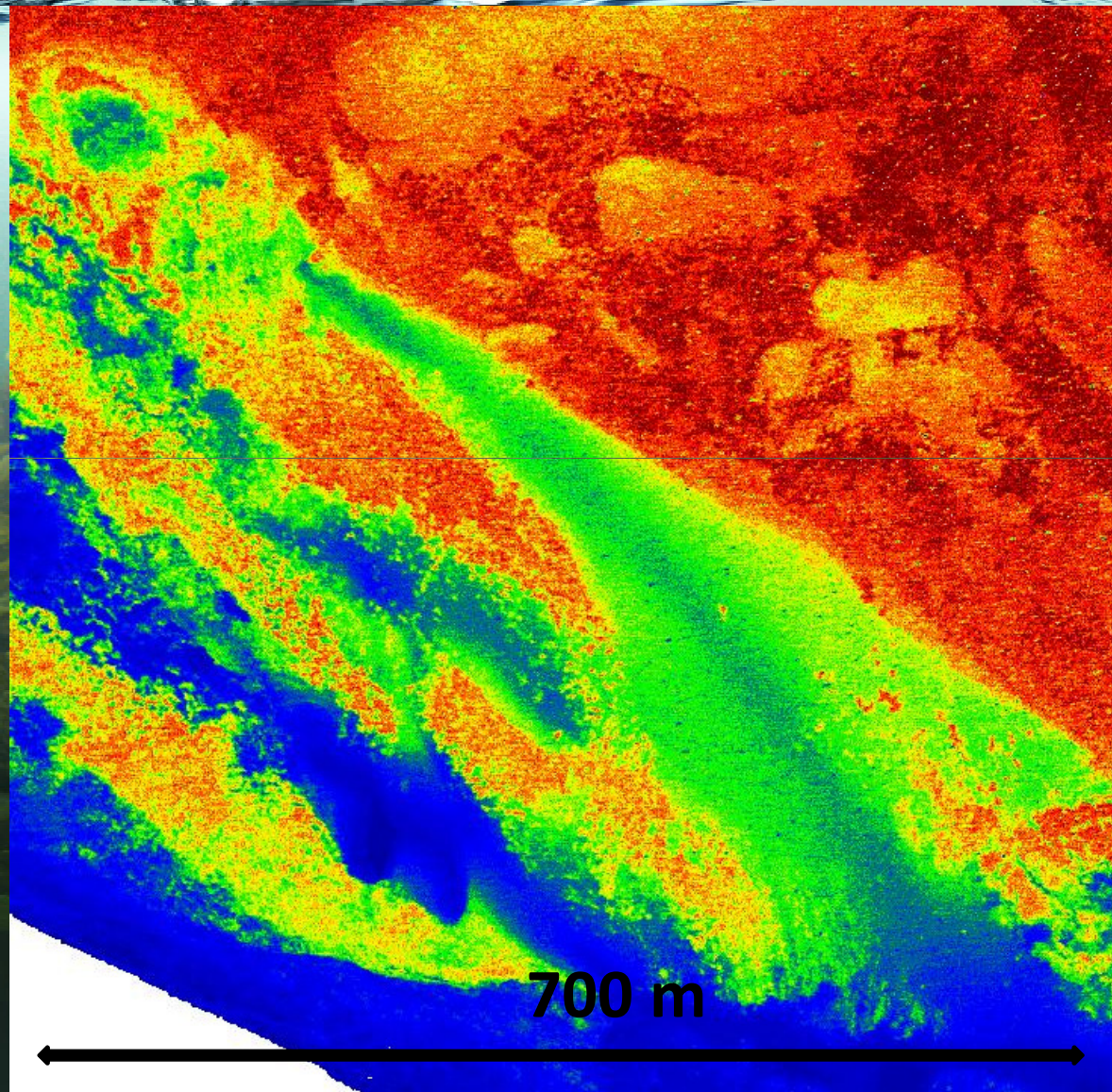
Water depth



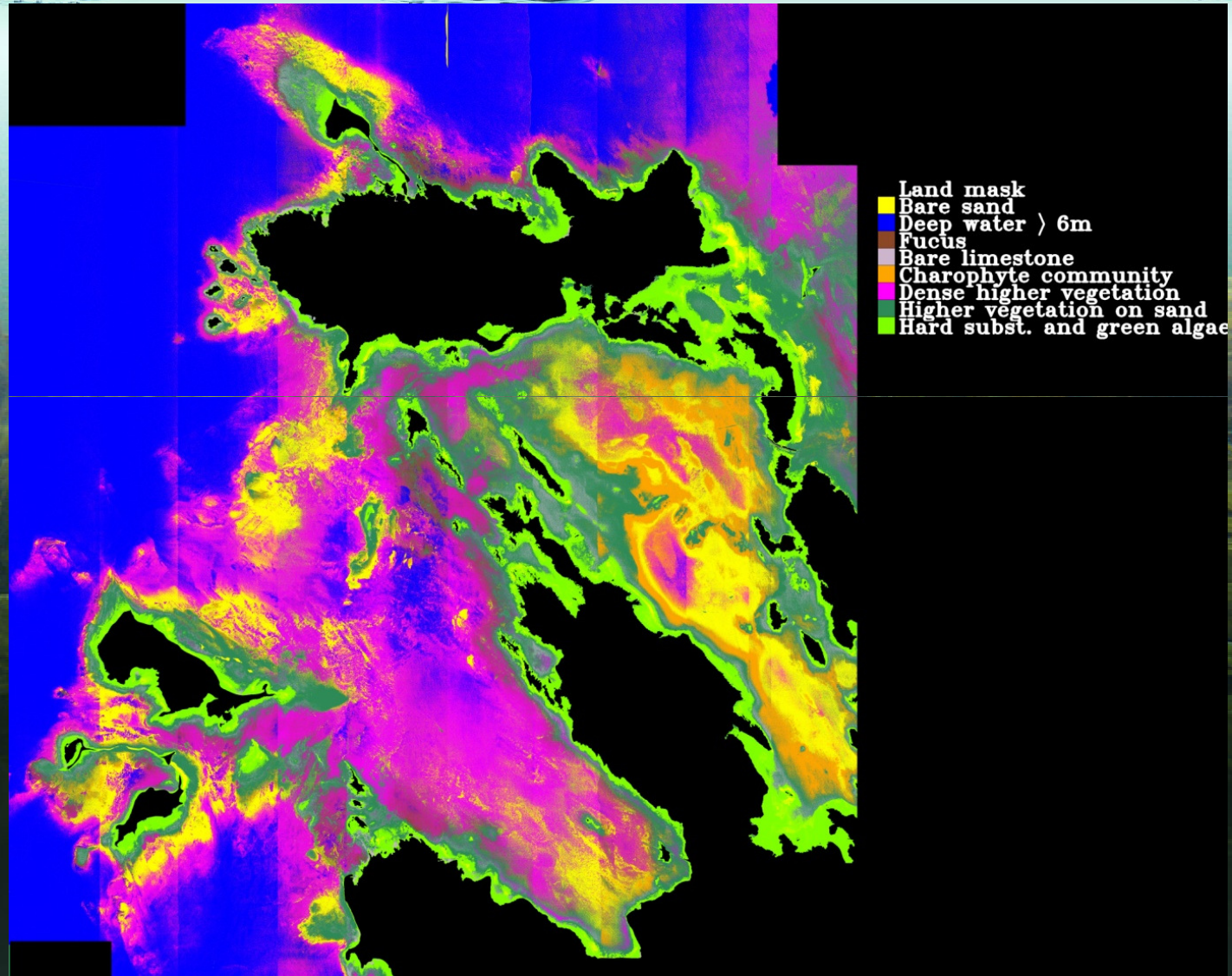
Water depth from remote sensing



Water depth from remote sensing



Algal cover from remote sensing





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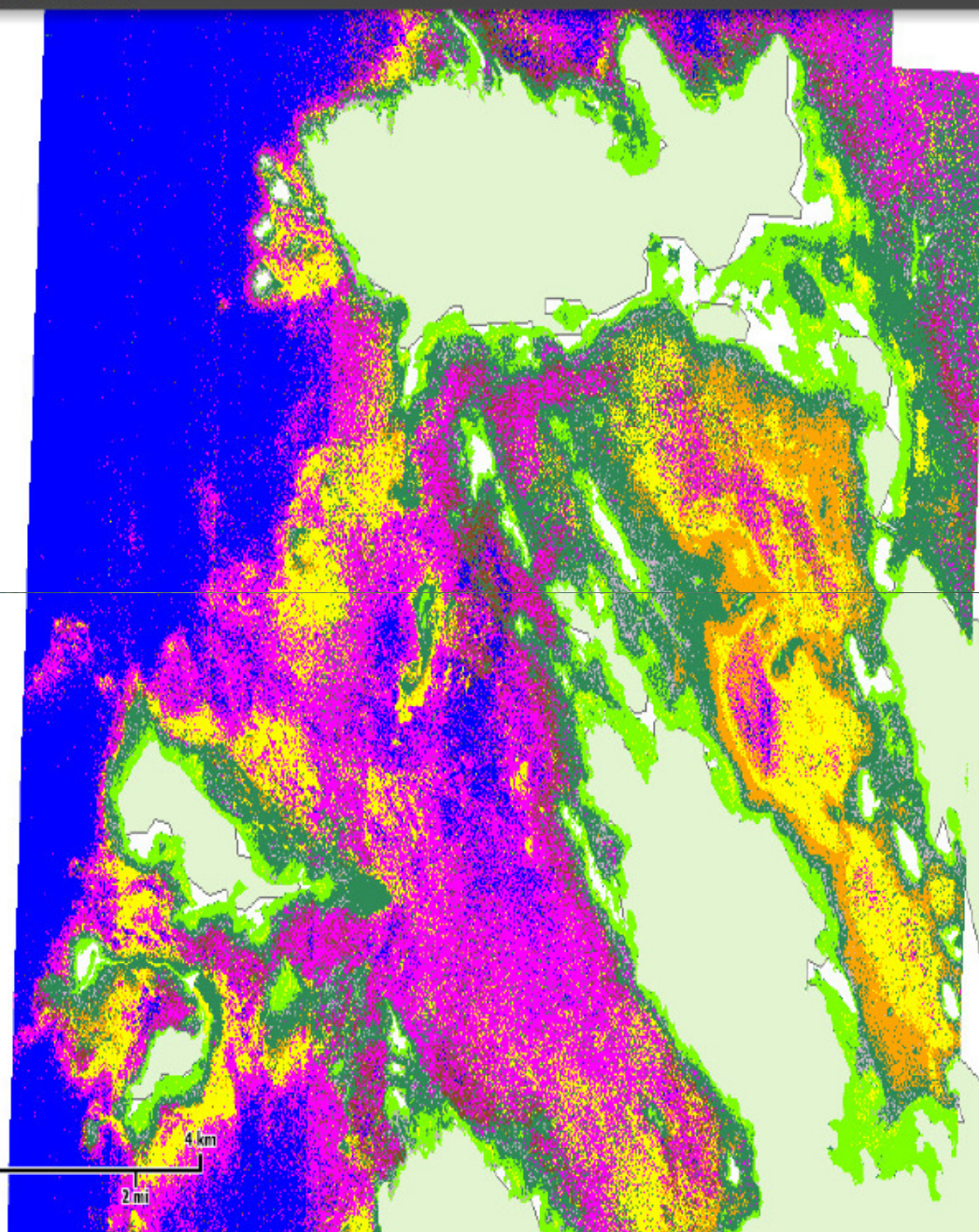
Habitats of HISPARES



About



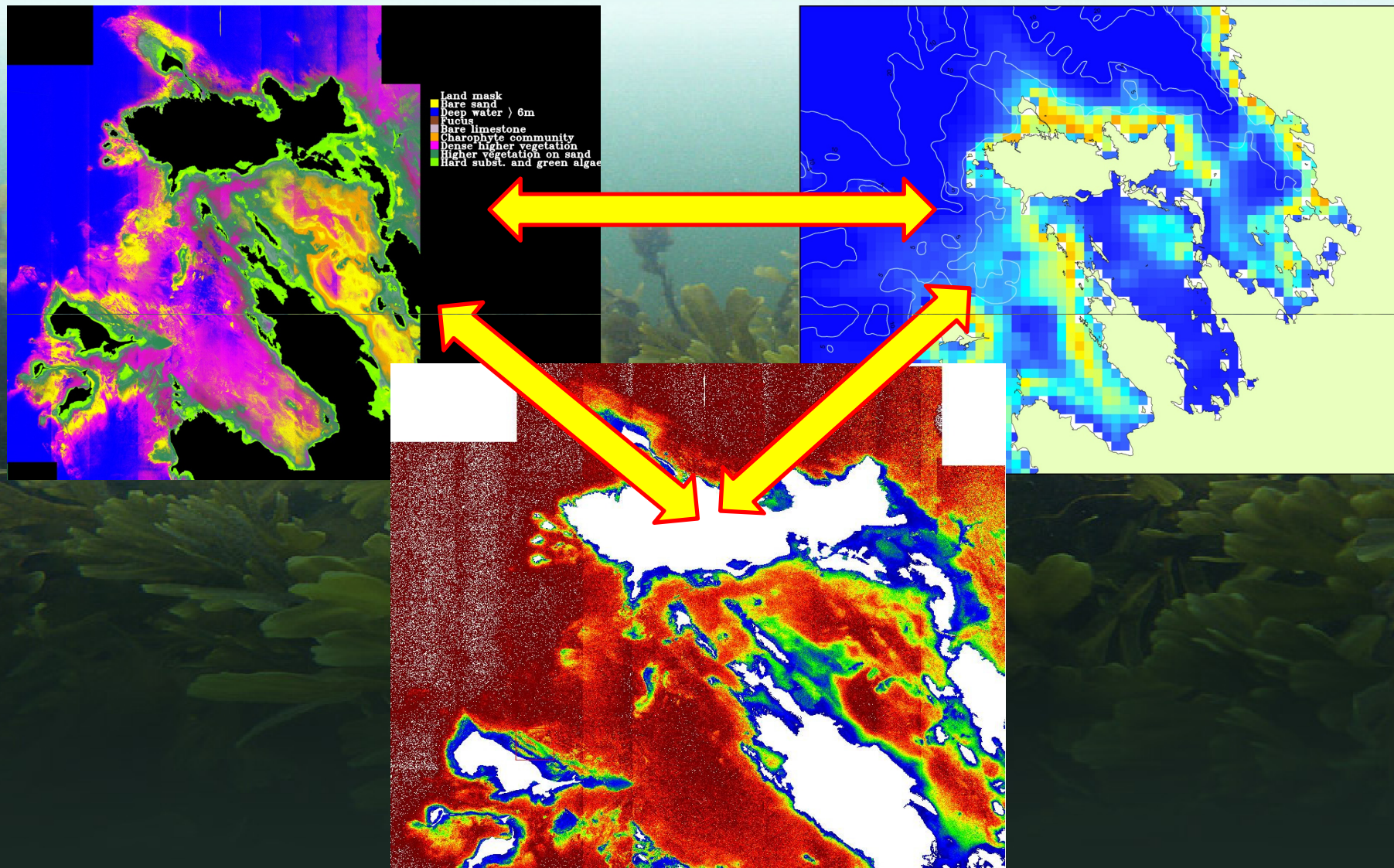
More...



Legend

- Bare sand, no vegetation
- Areas > 5m, no information
- Fucus vesiculosus* community
- Bare limestone, no vegetation
- Thick charophyte community, substrate not visible
- Thick filamentous algae, substrate not visible
- Higher plants on sandy substrate
- Green filamentous algae on limestone cobbles-pebbles and rock

Next steps





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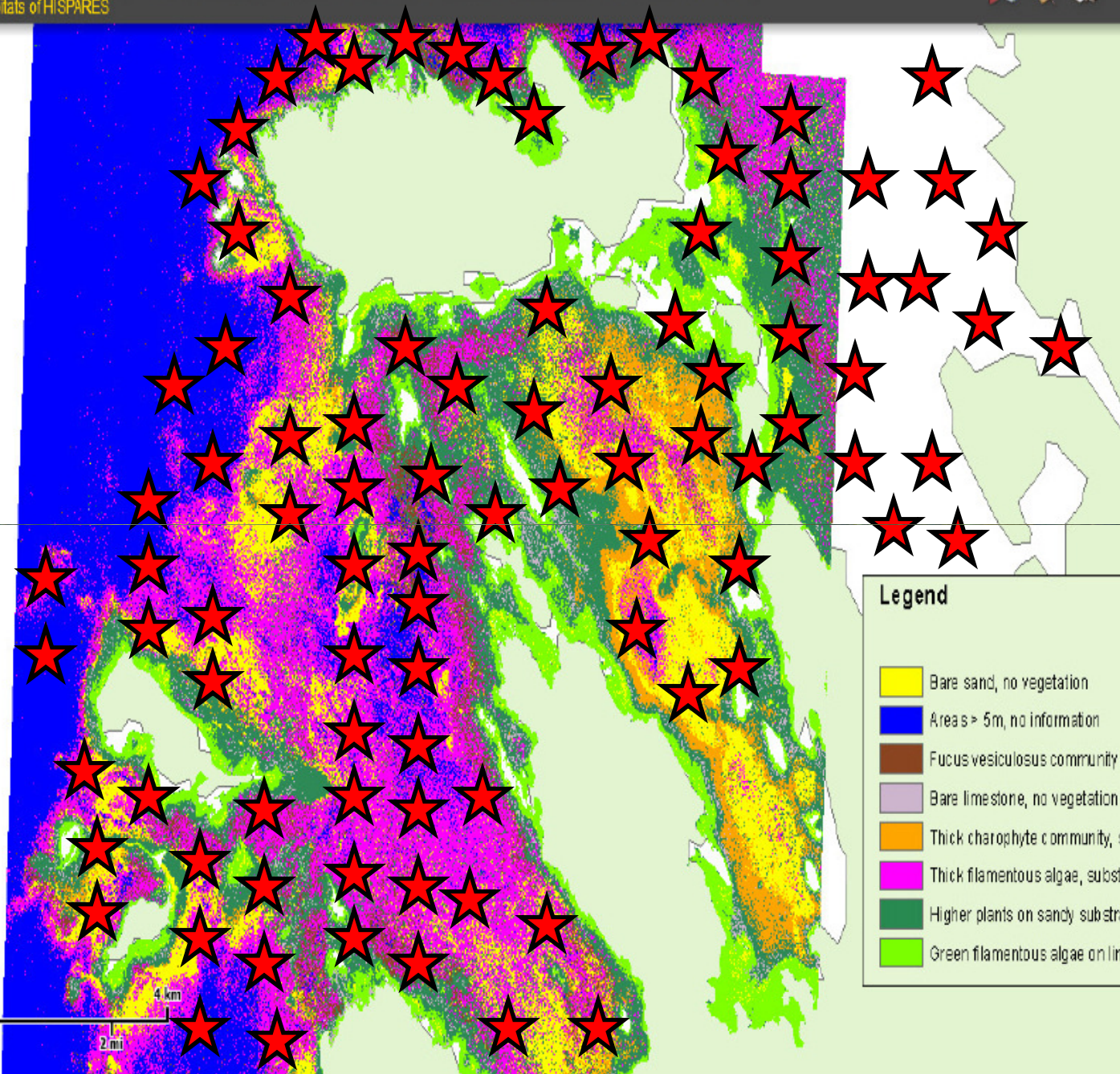
Habitats of HISPADES



About



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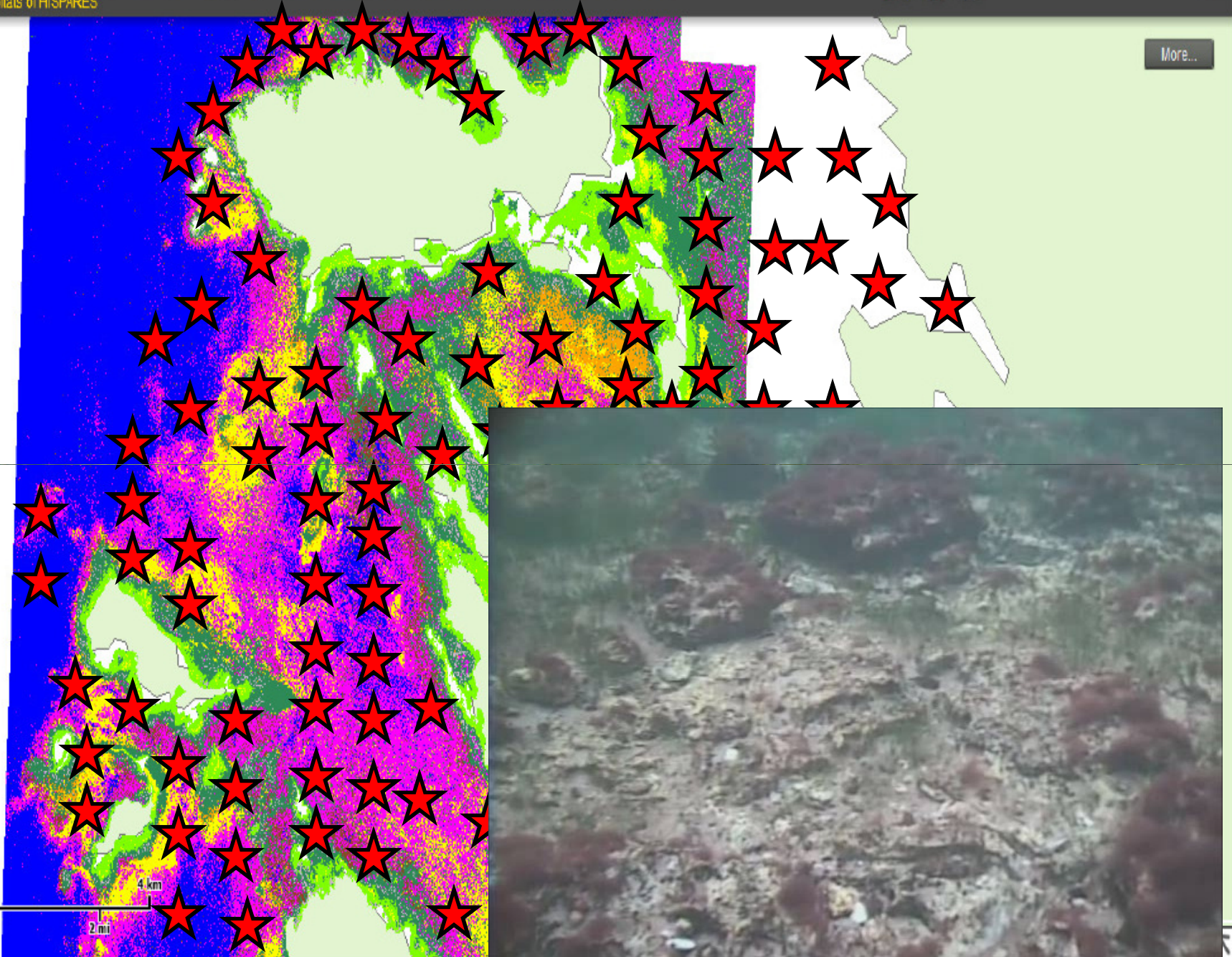
Habitats of HISPARES



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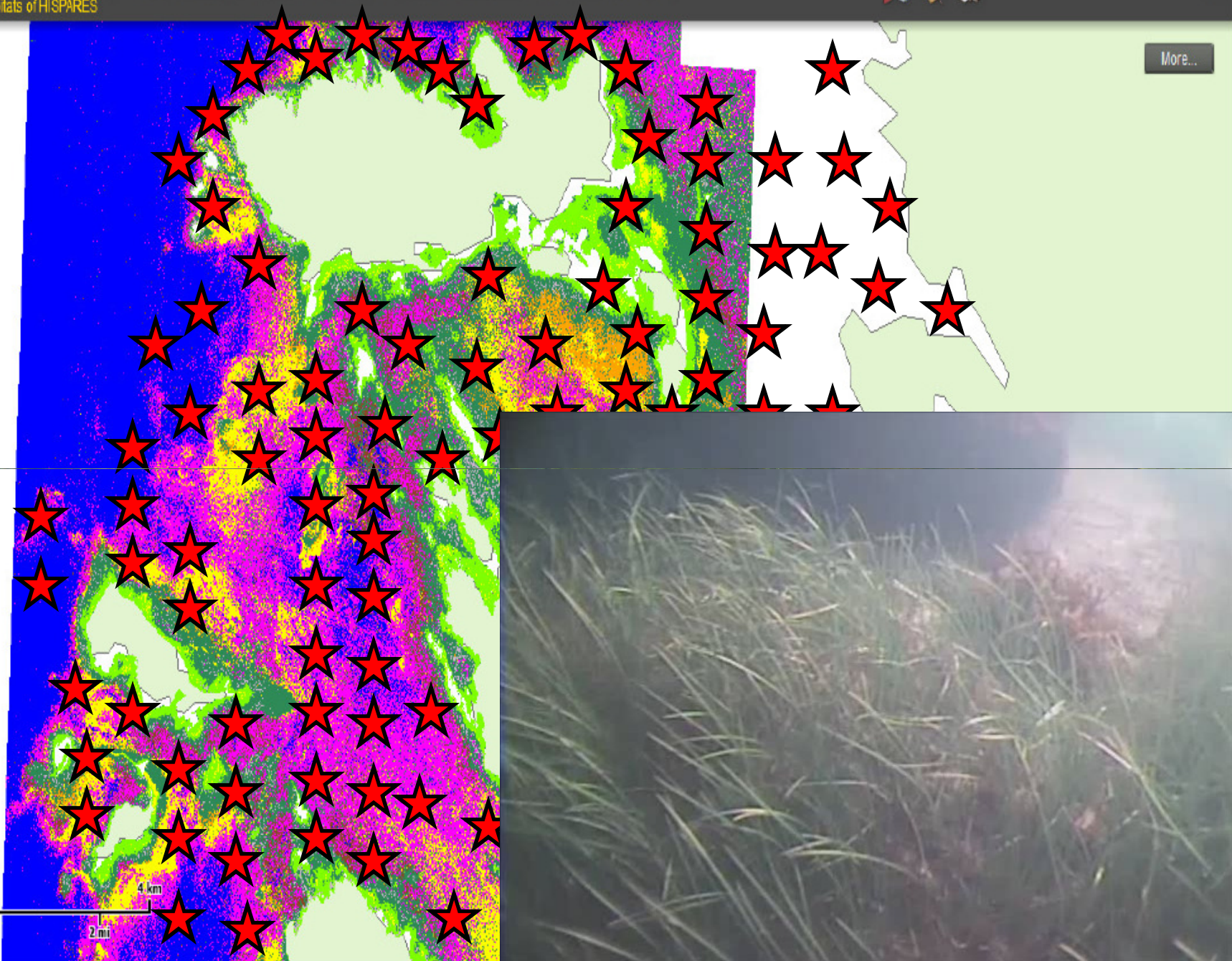
Habitats of HISPARES



About



More...



An underwater photograph showing a dense field of green seaweed at the bottom. The water is clear and blue, with a wavy surface visible at the top under a bright sky with clouds. The text 'Thank you!' is overlaid in the center in a bold, red, sans-serif font.

Thank you!