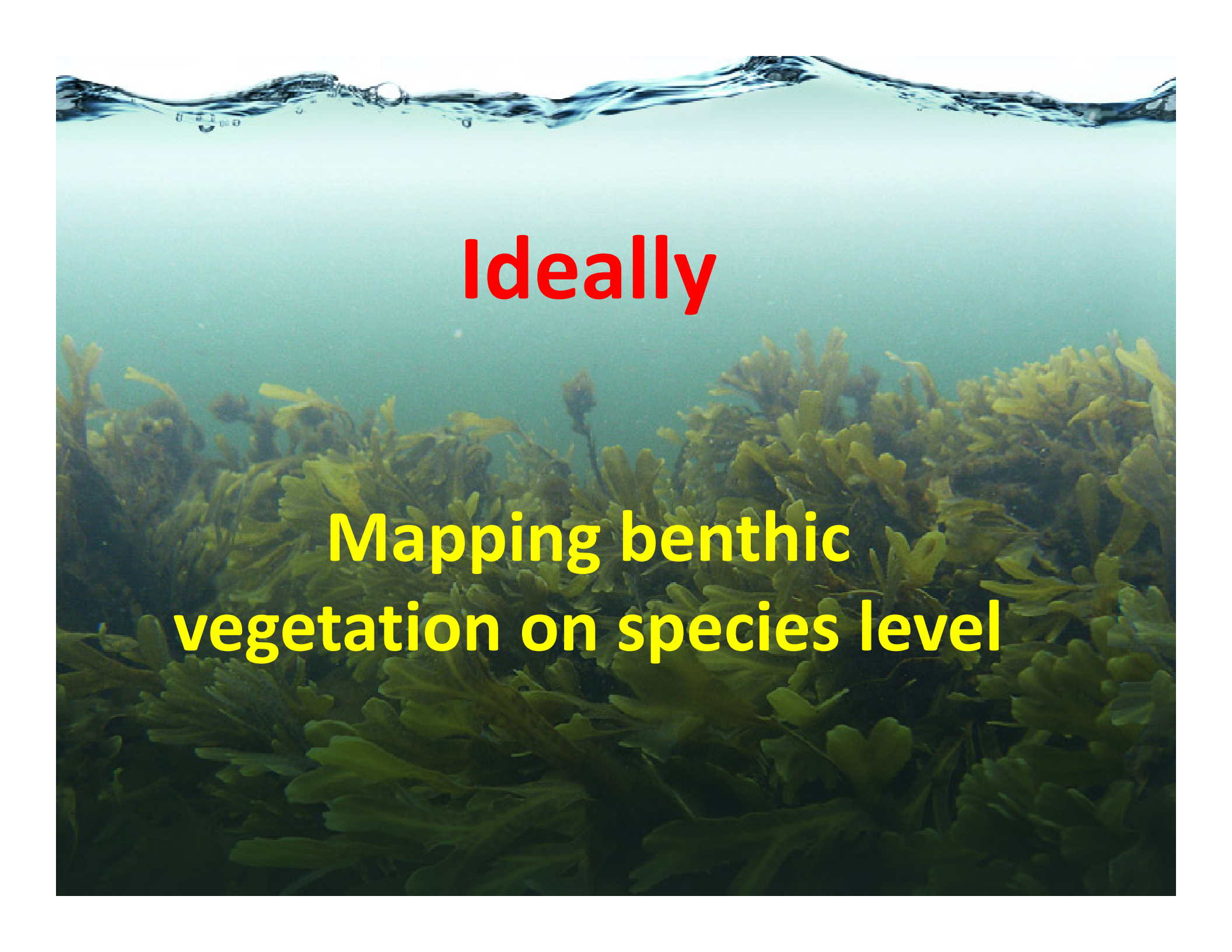




On the possibility to use remote sensing in mapping of biodiversity in shallow water coastal environments

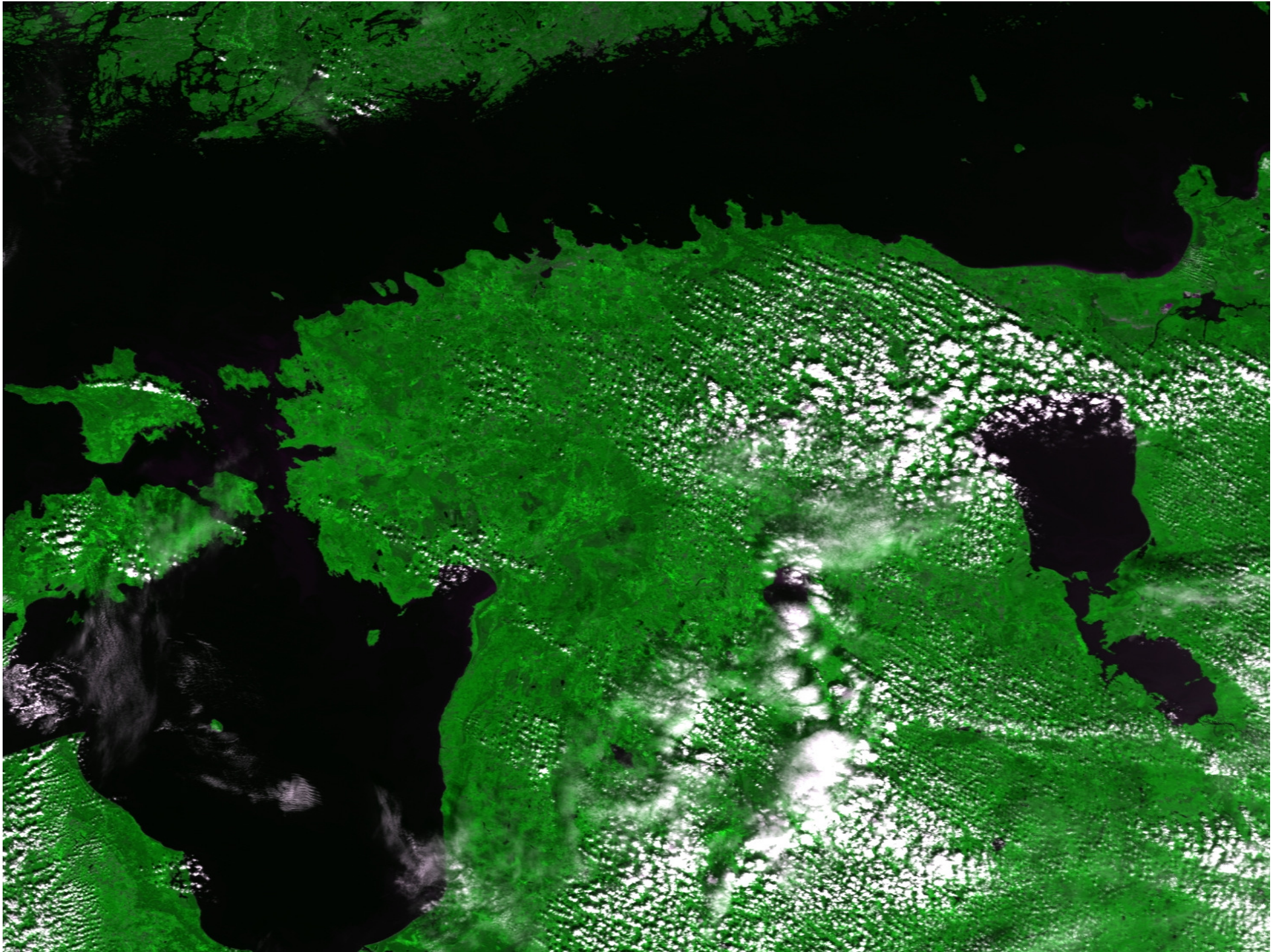
Tiit Kutser, Ele Vahtmäe, Jonne Kotta,
Merli Pärnoja, Kaire Kaljurand, Lennart Lennuk

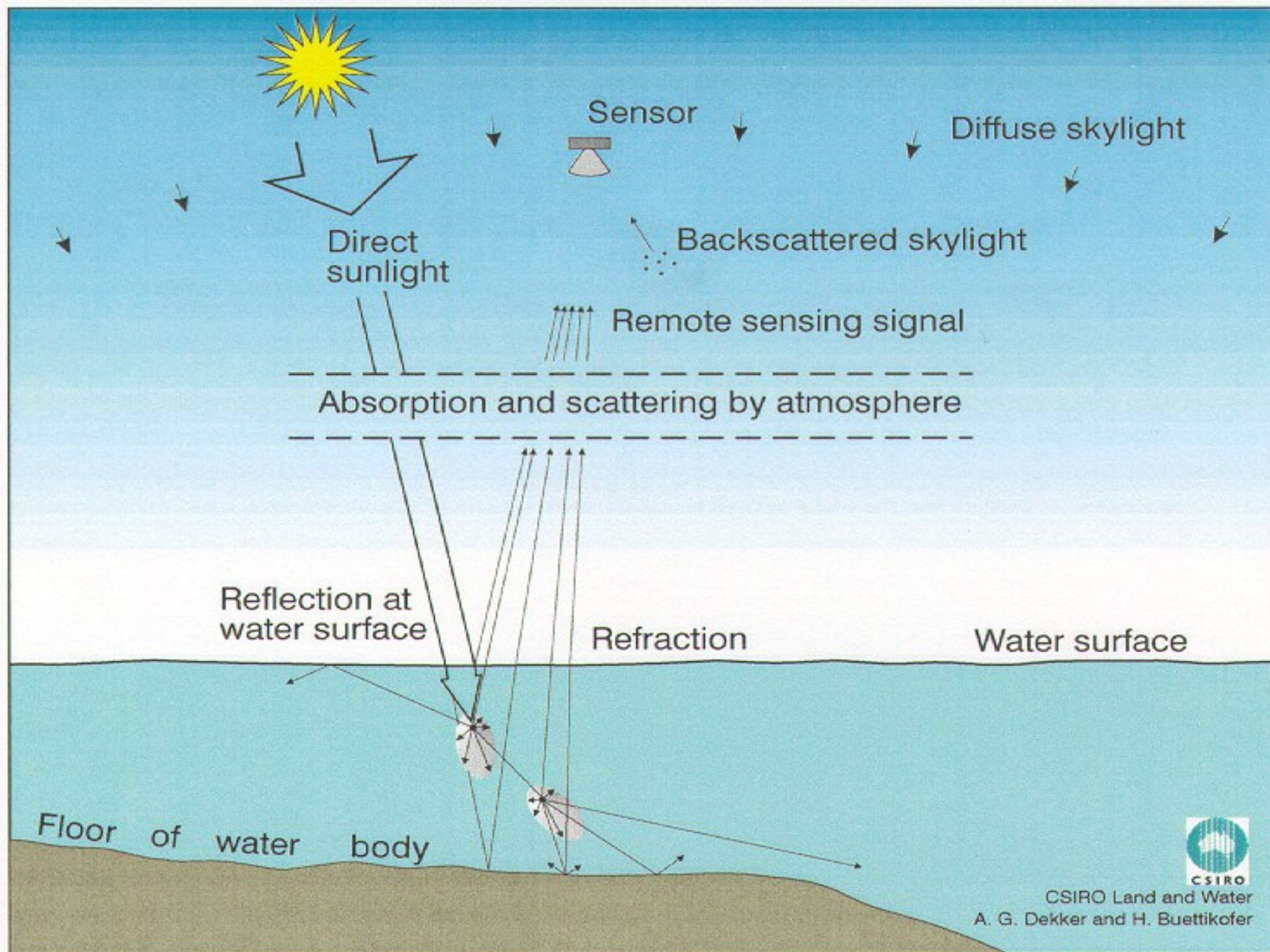
Estonian Marine Institute, University of Tartu

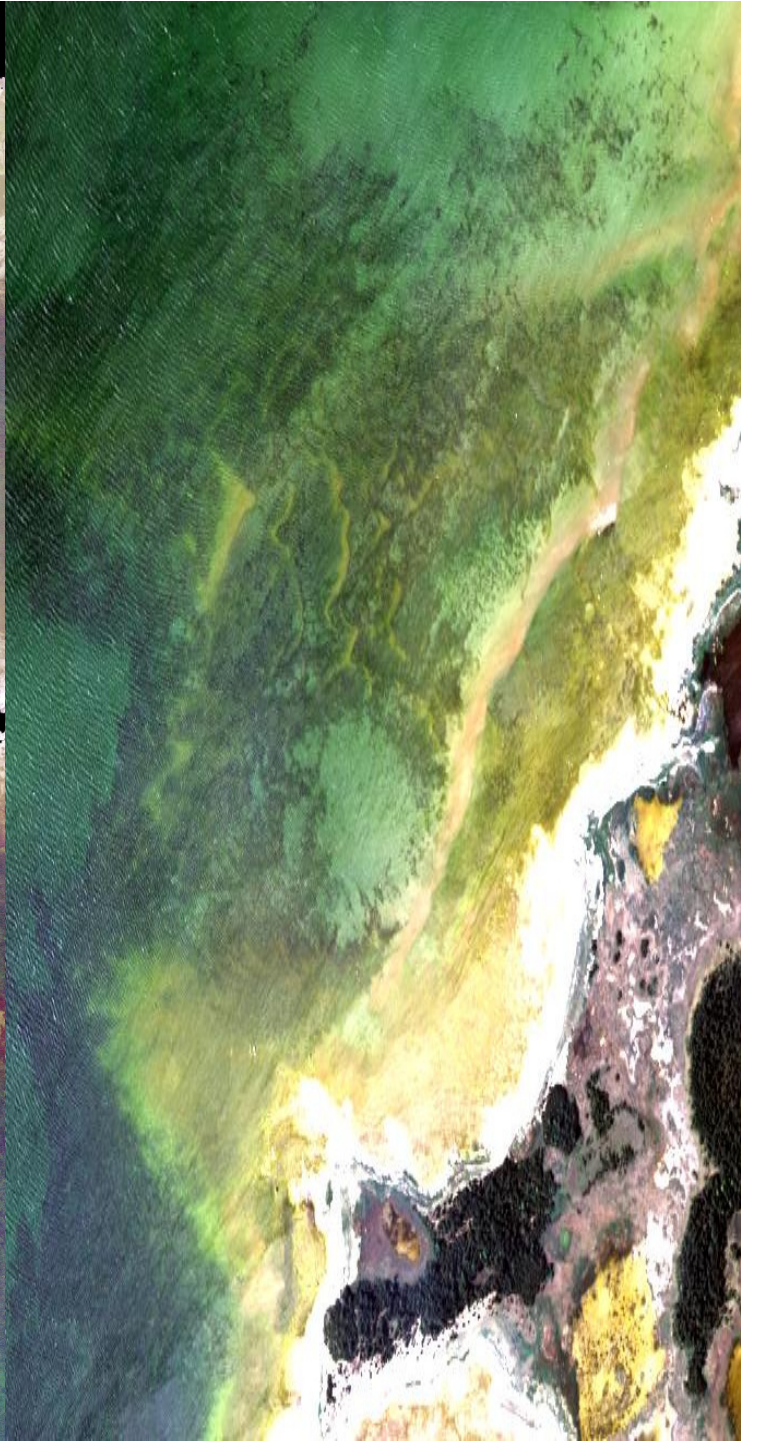
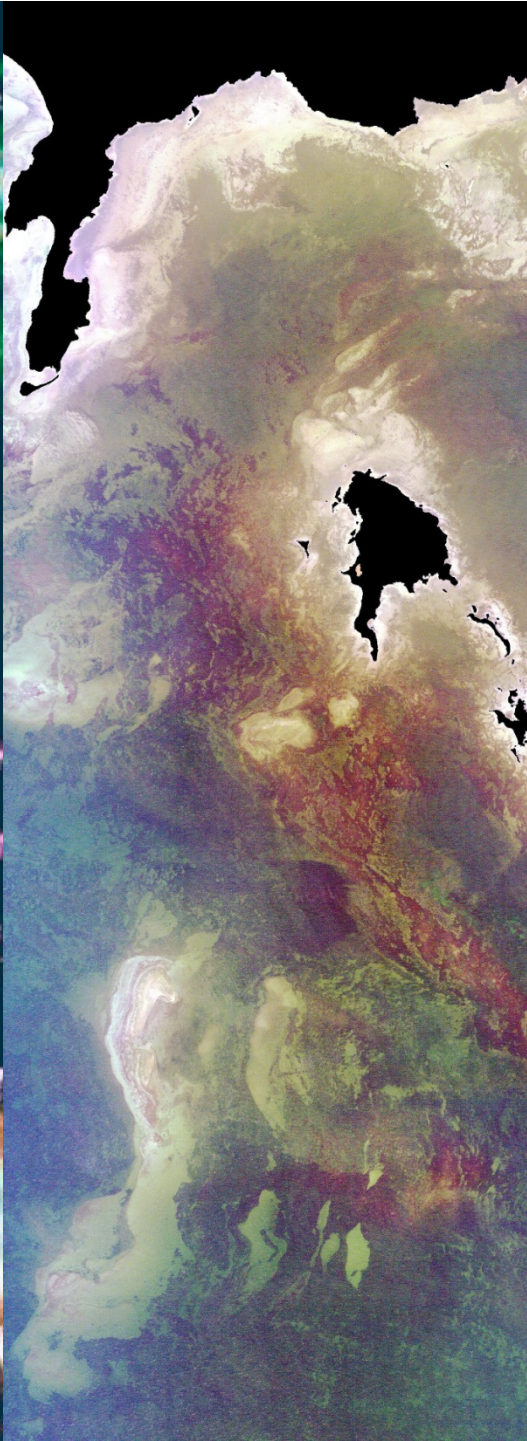
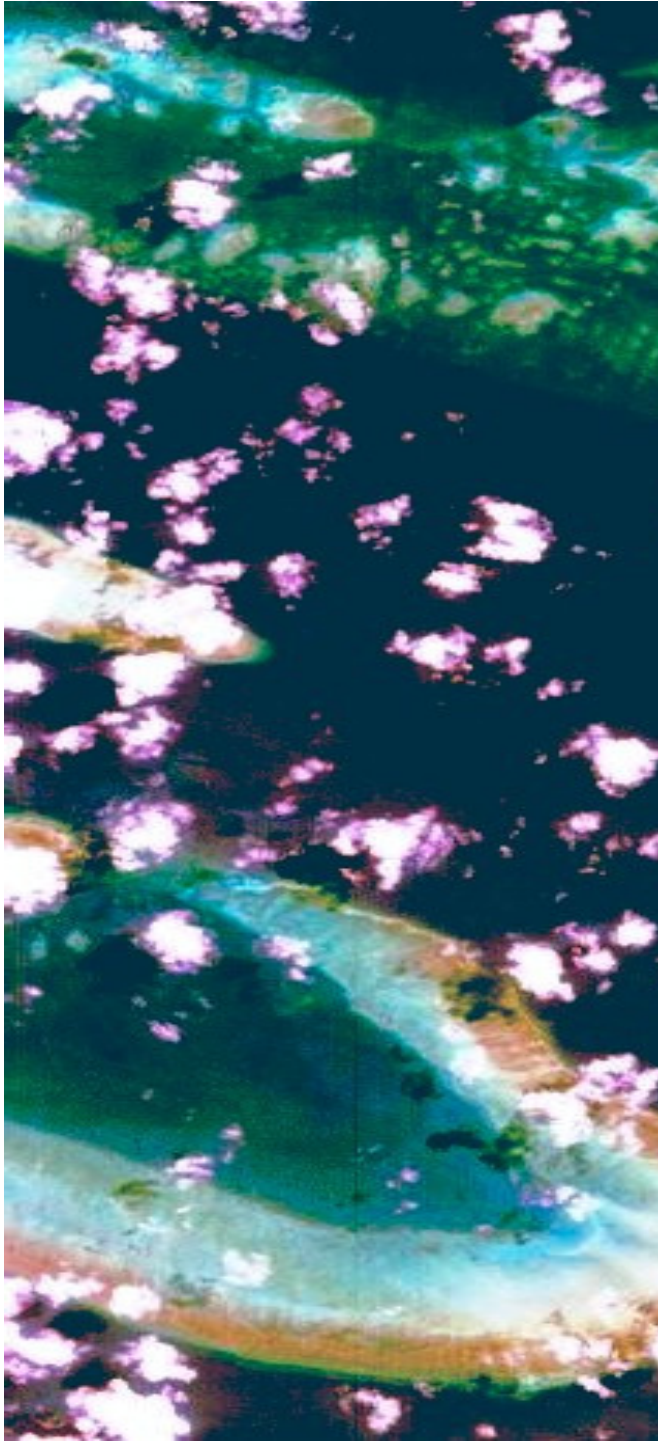
An underwater photograph showing a dense field of green and yellow seaweed on the seabed. The water is clear and blue, with a wavy surface visible at the top. The text 'Ideally' is written in red, and 'Mapping benthic vegetation on species level' is written in yellow.

Ideally

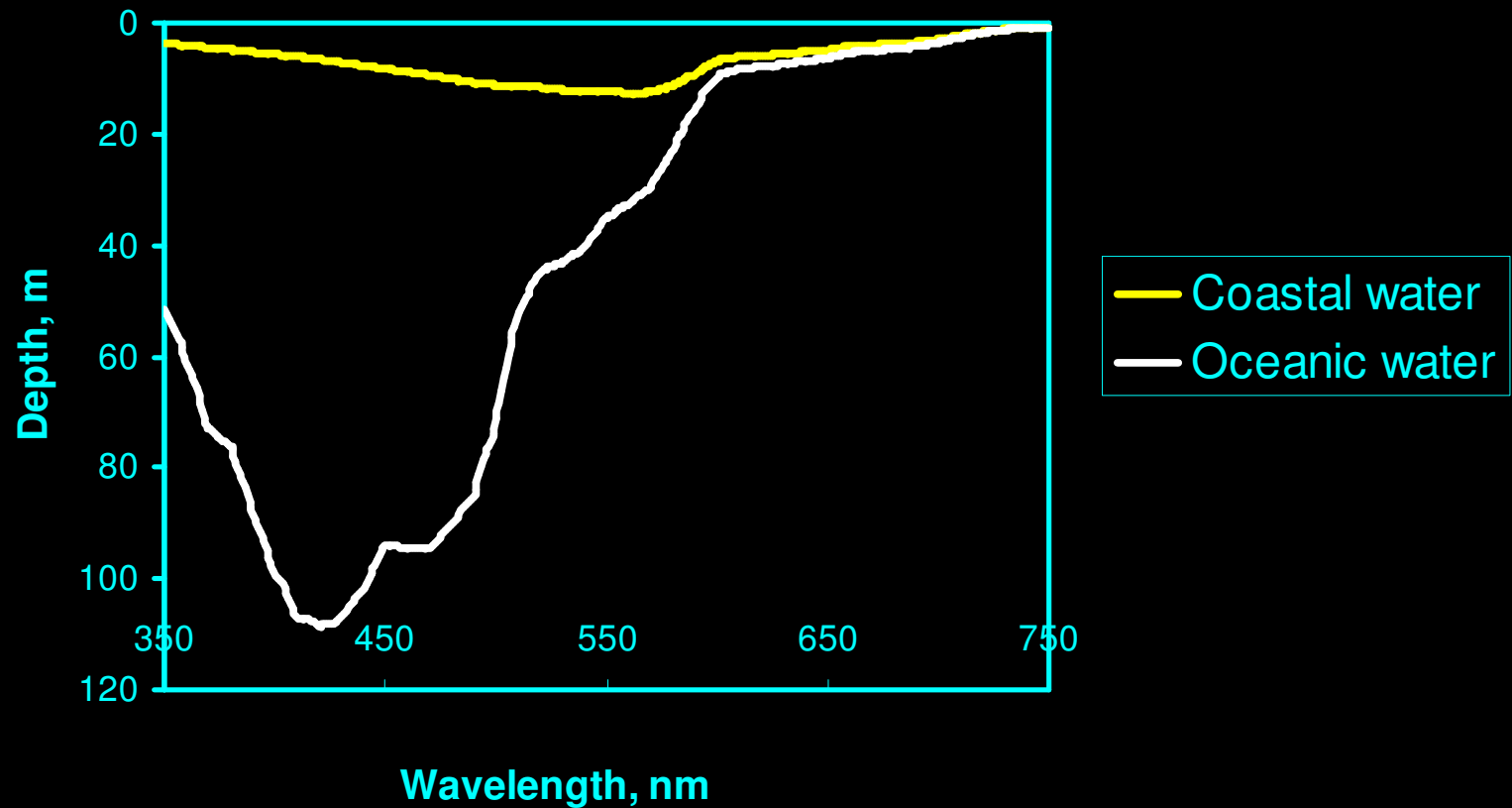
**Mapping benthic
vegetation on species level**

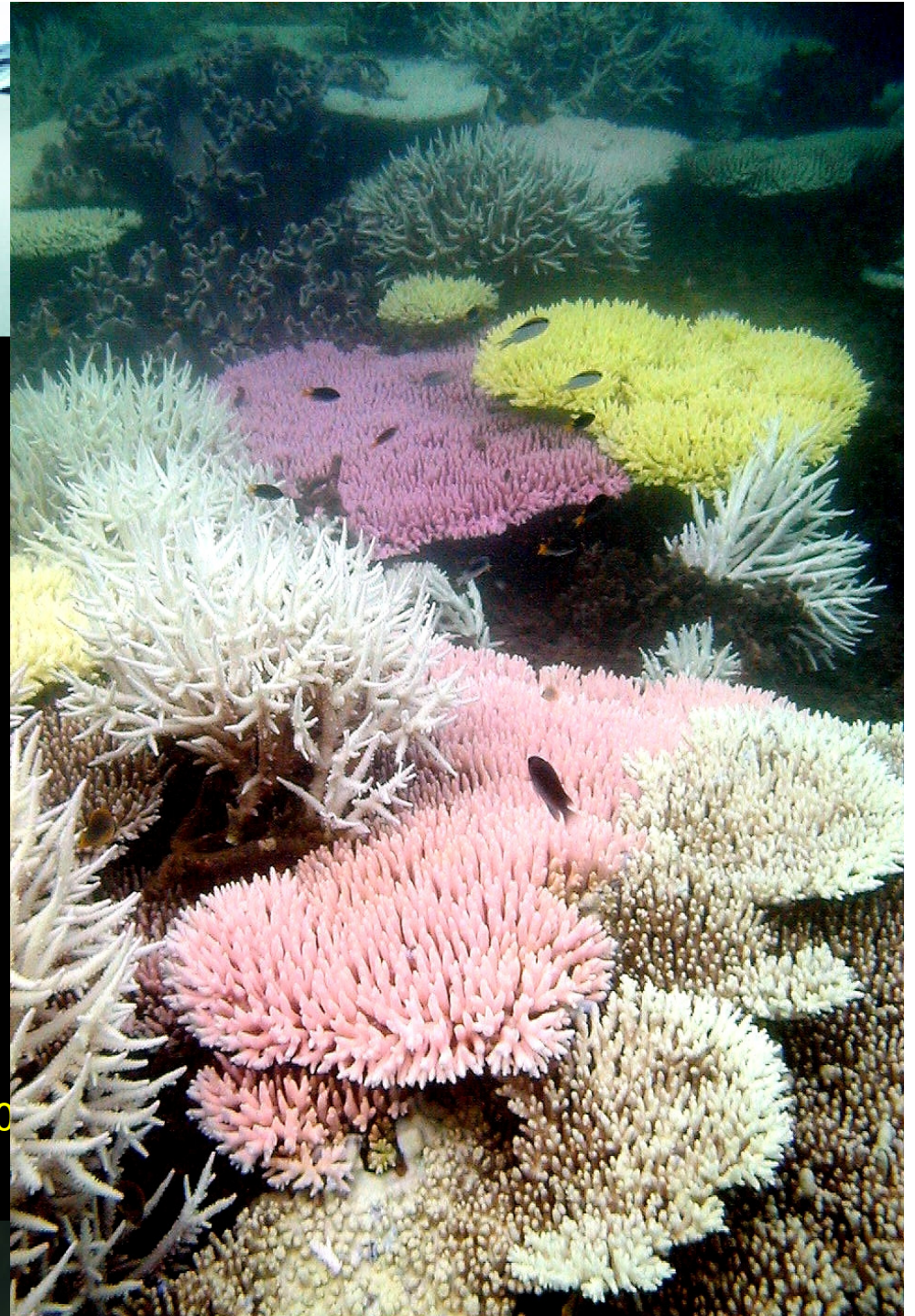
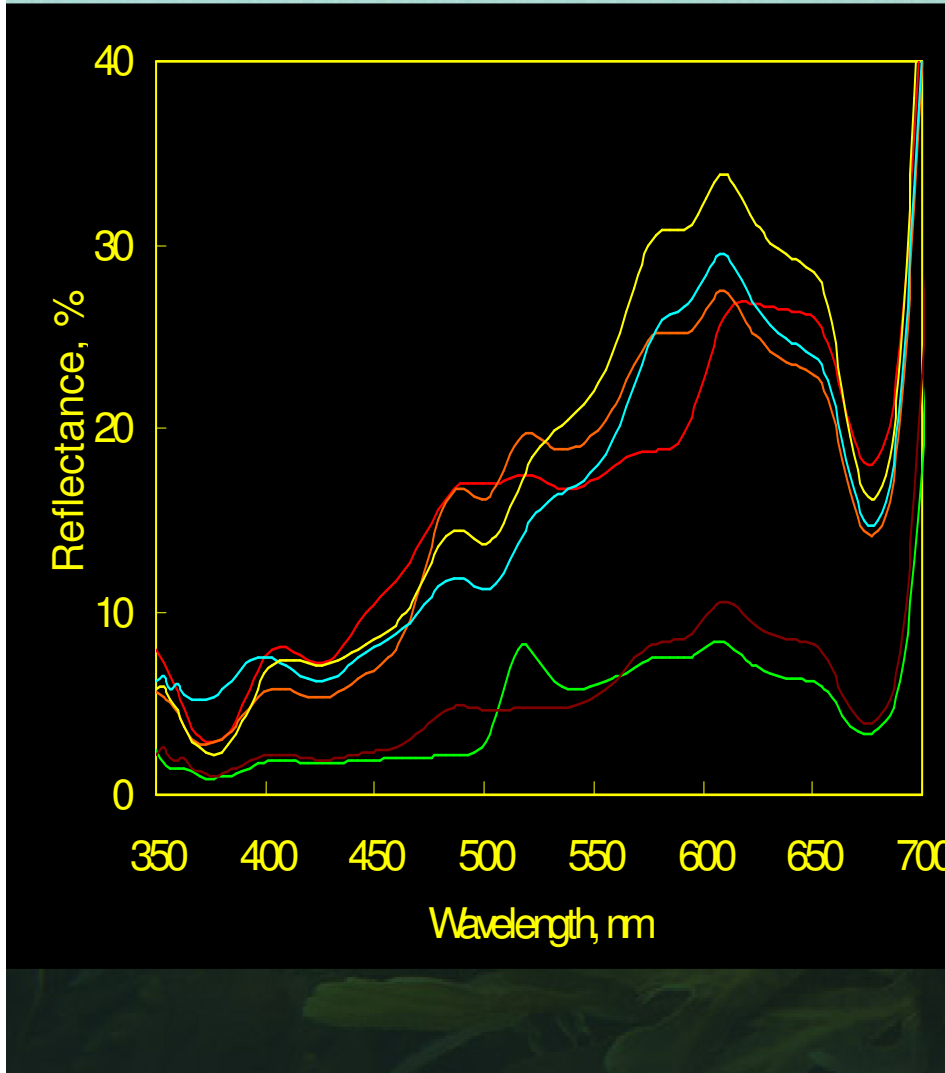






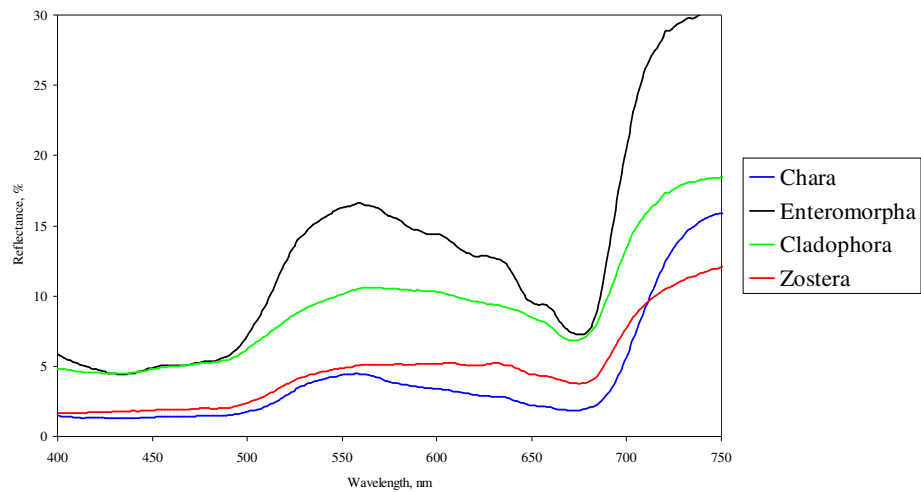
Depth of penetration



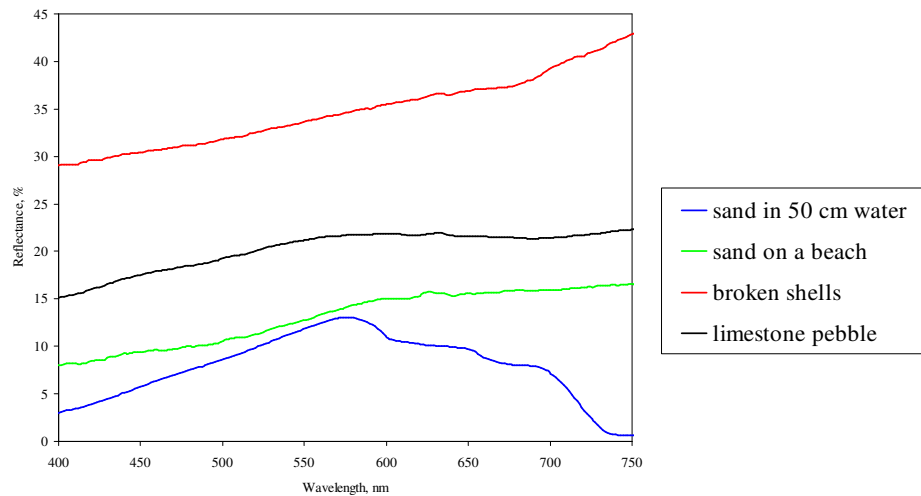


Optical properties of benthic types

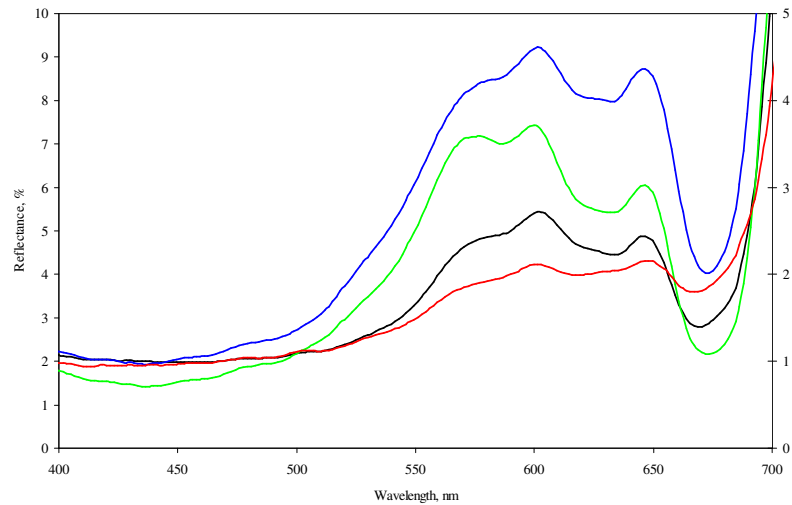
Green algae and seagrass



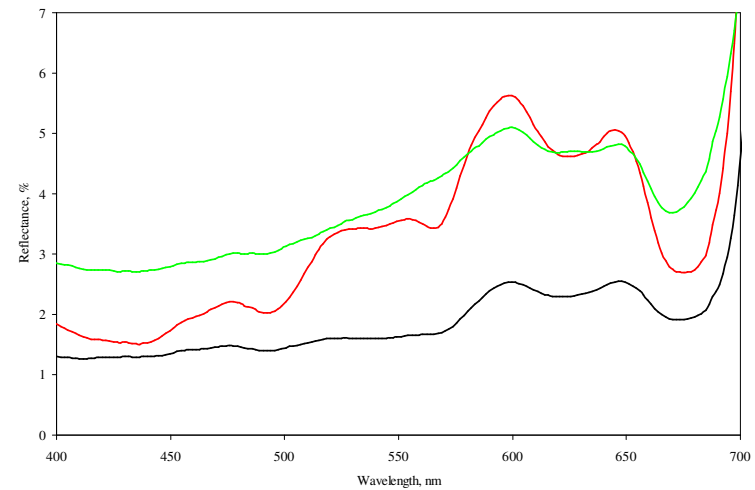
Abiotic



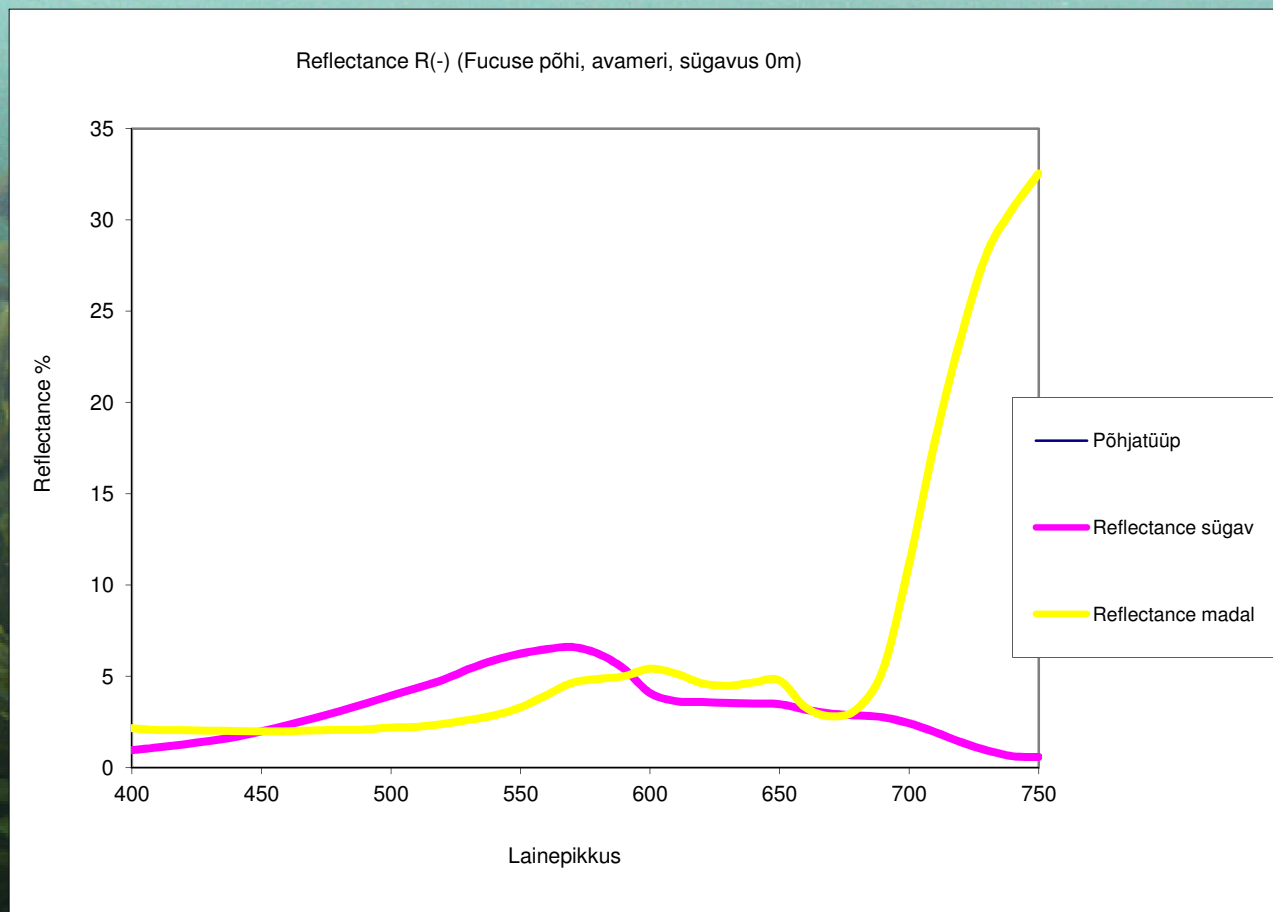
Fucus vesiculosus



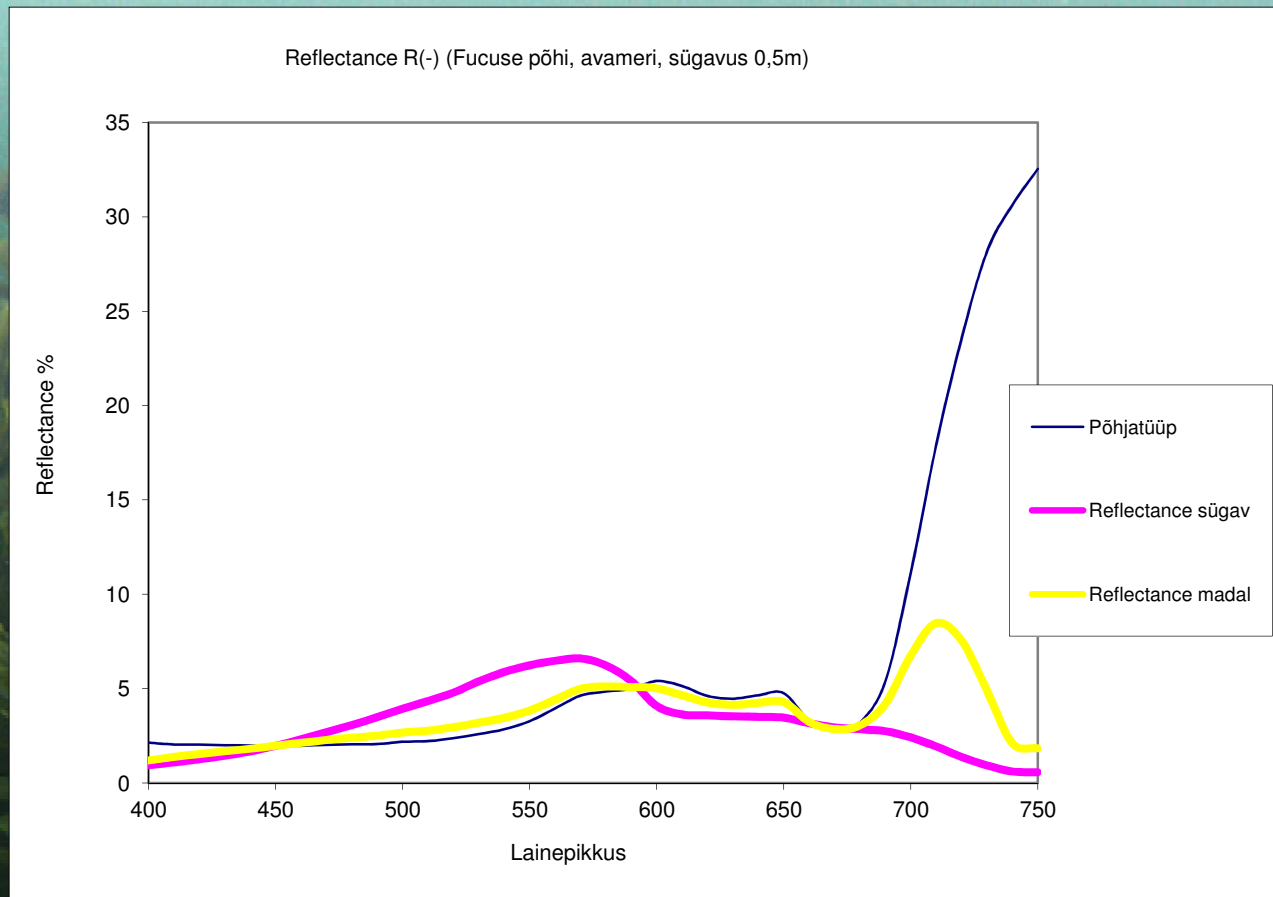
Furcellaria lumbricalis



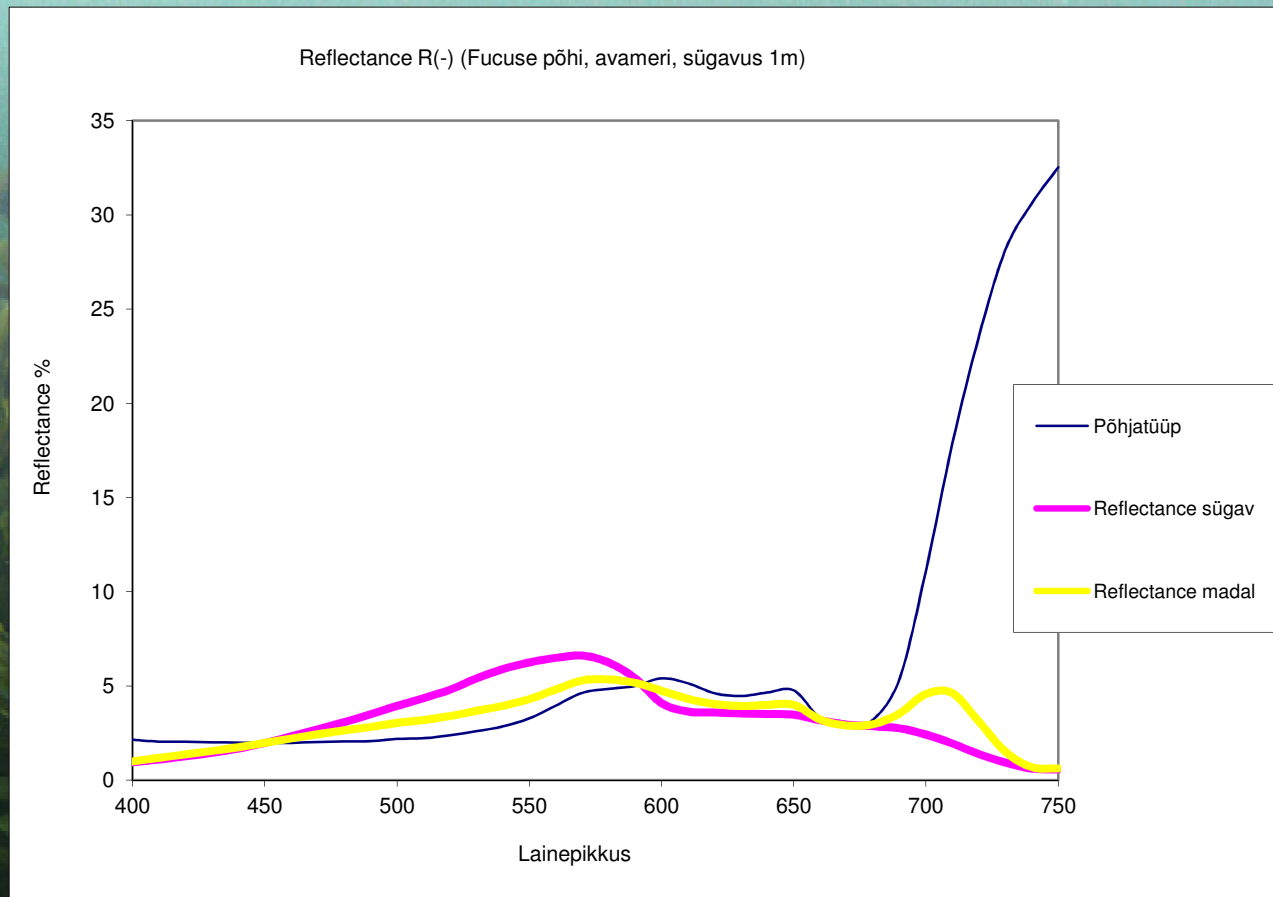
***Fucus** without overlaying water*



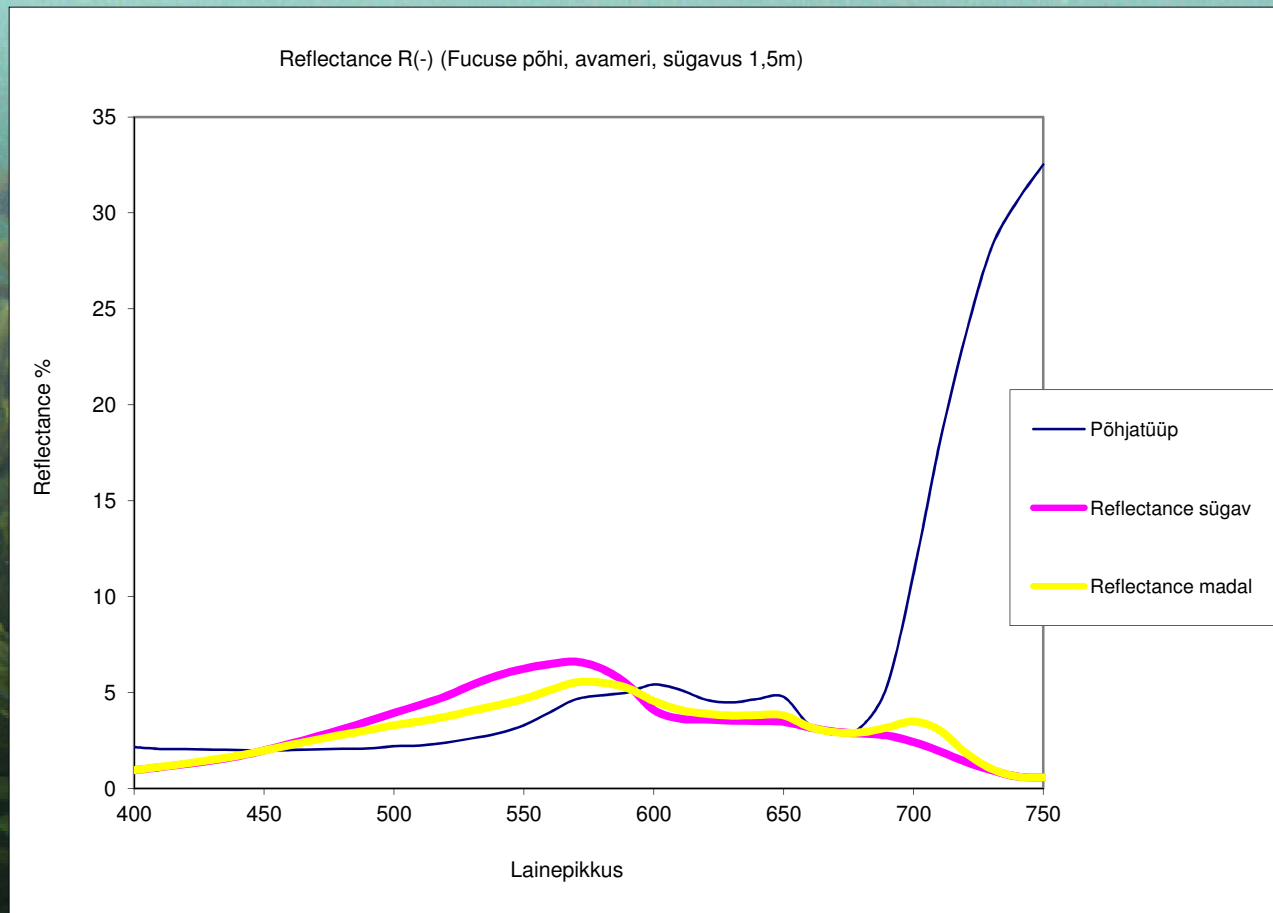
Fucus, 0.5 m deep water



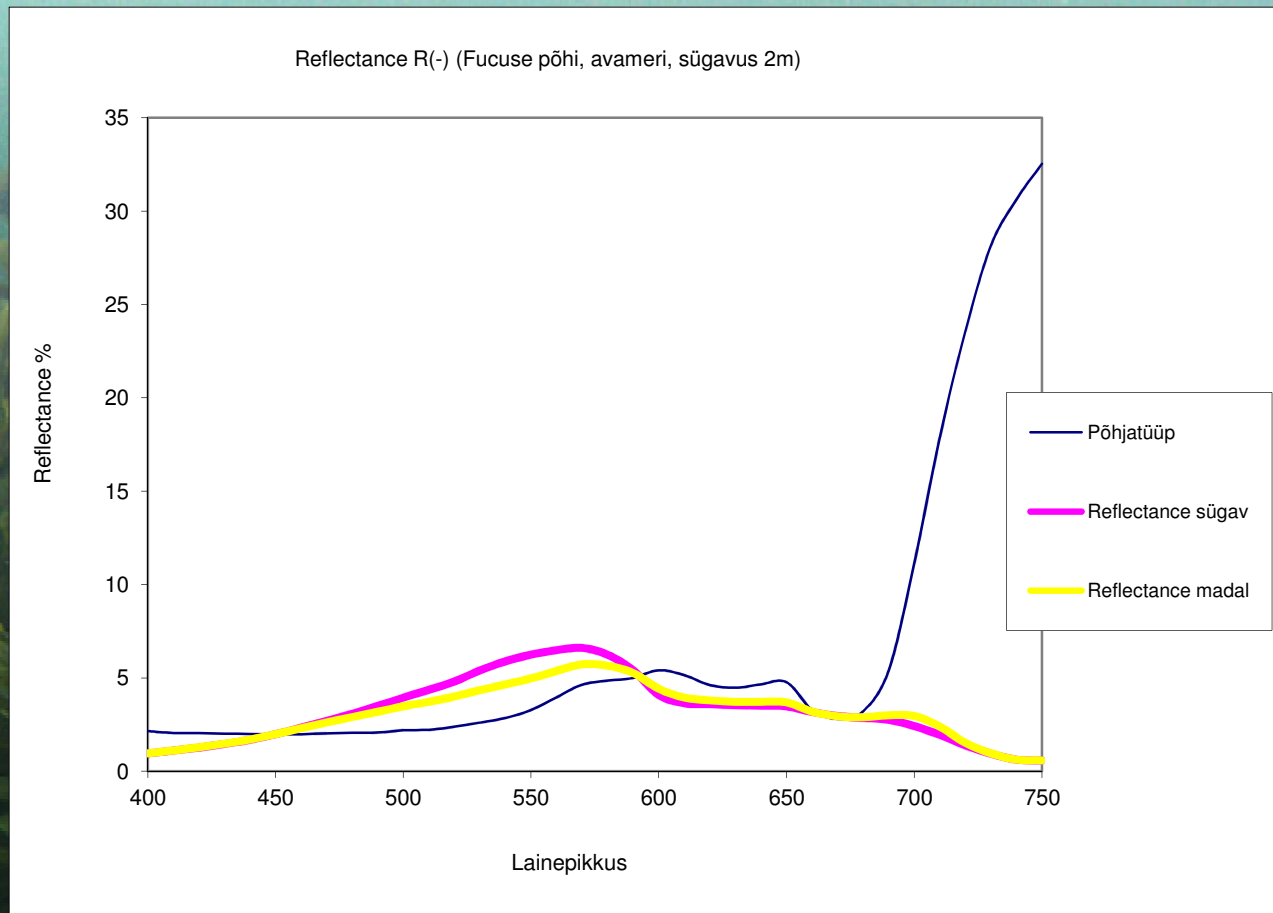
Fucus, 1.0 m deep water



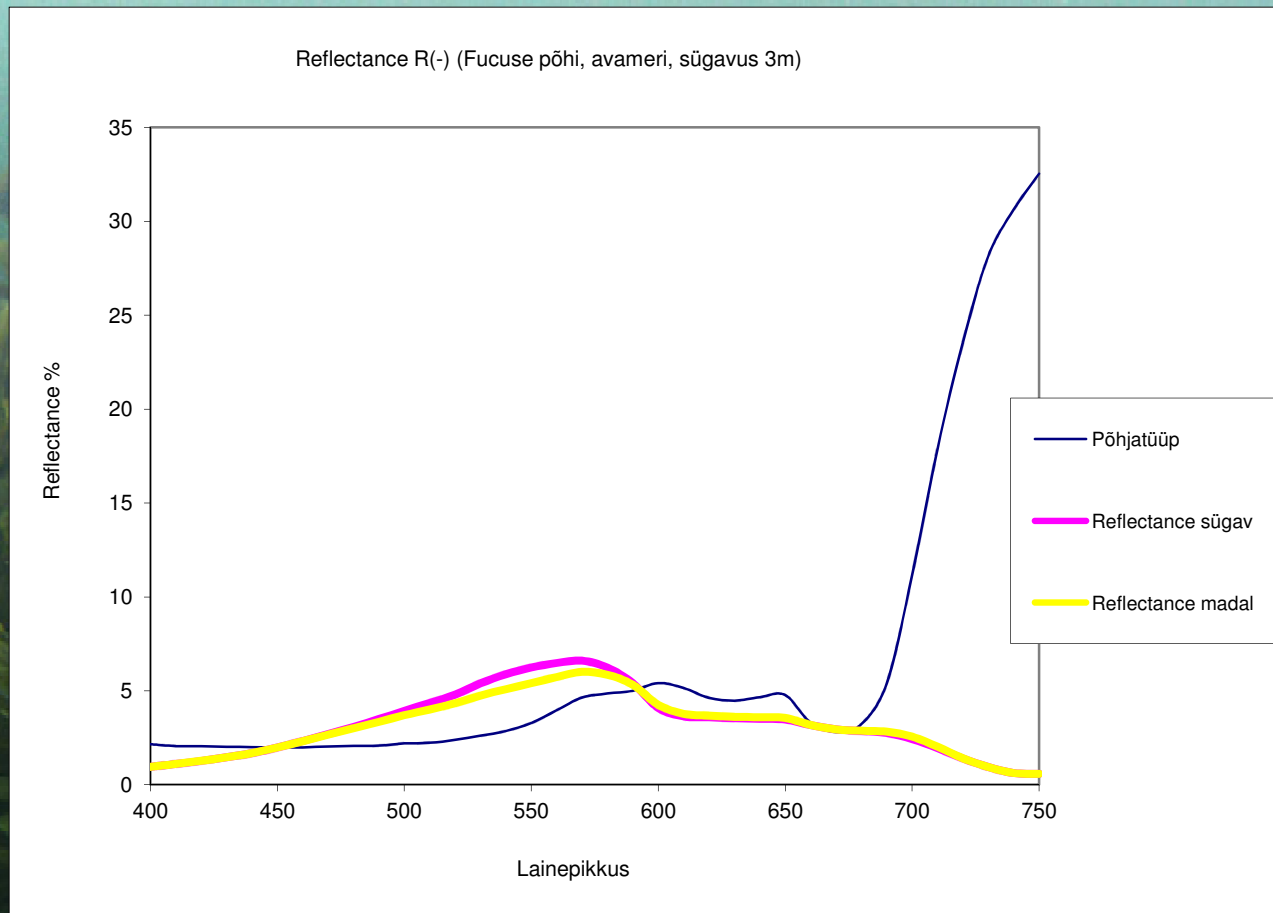
Fucus, 1.5 m deep water



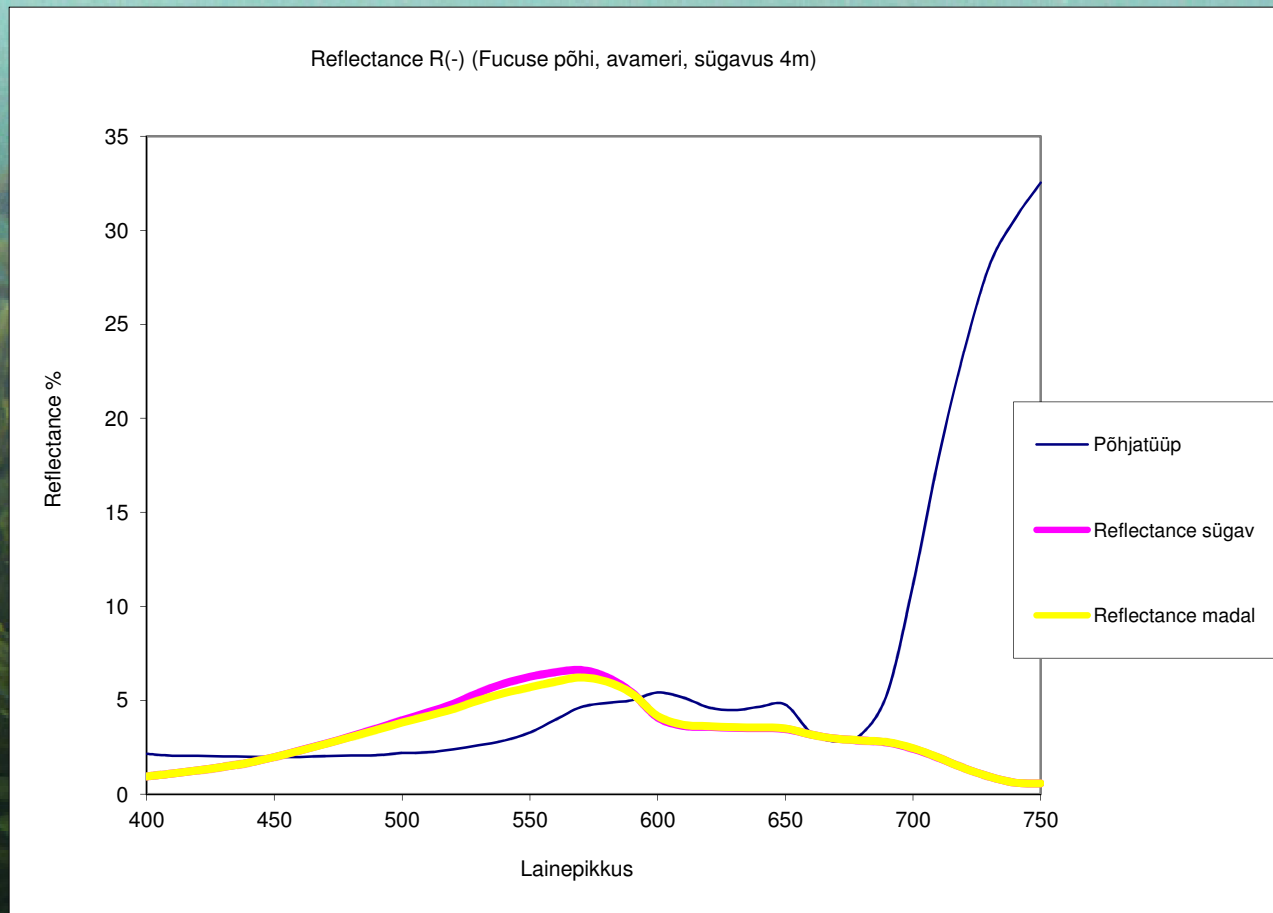
Fucus, 2 m deep water



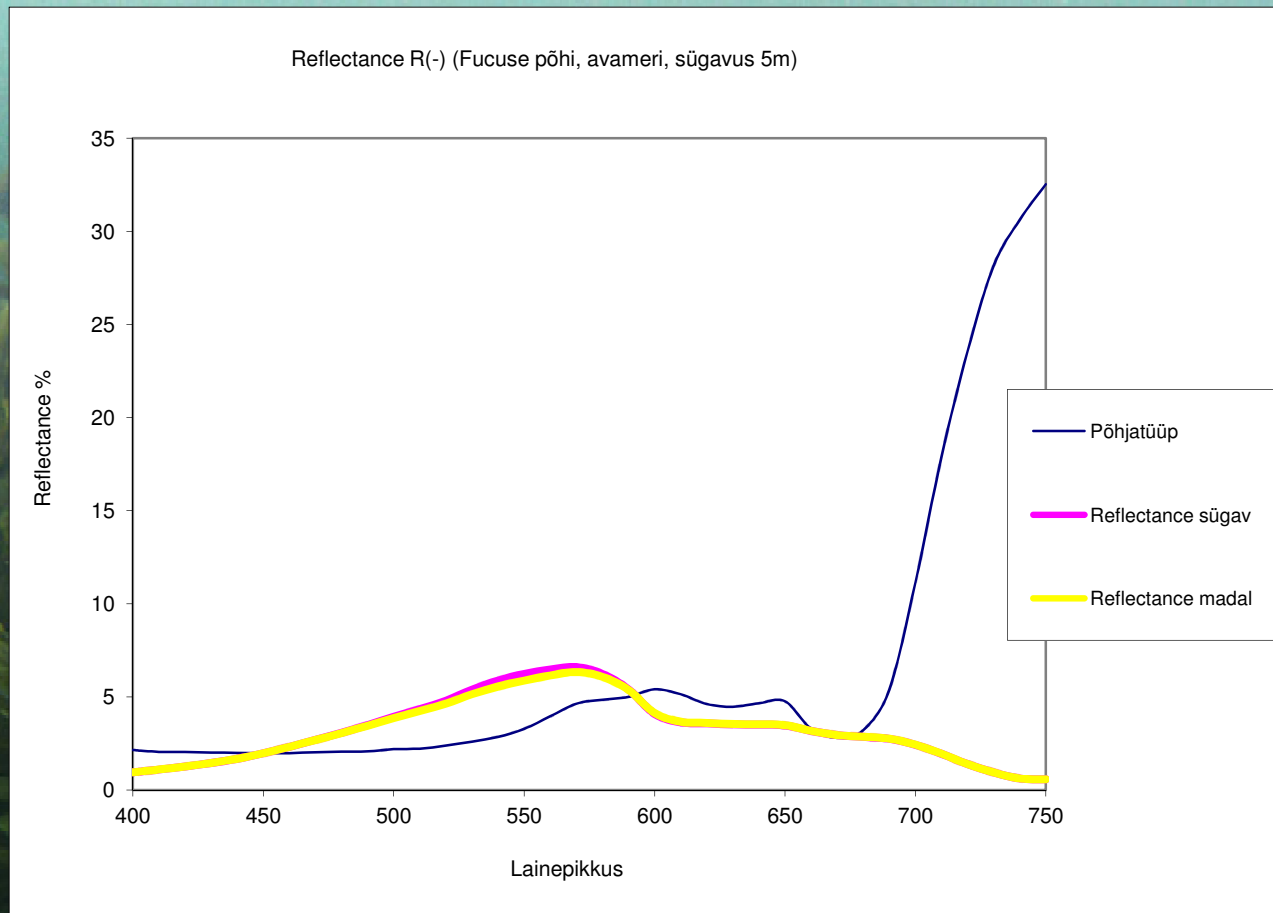
Fucus, 3 m deep water



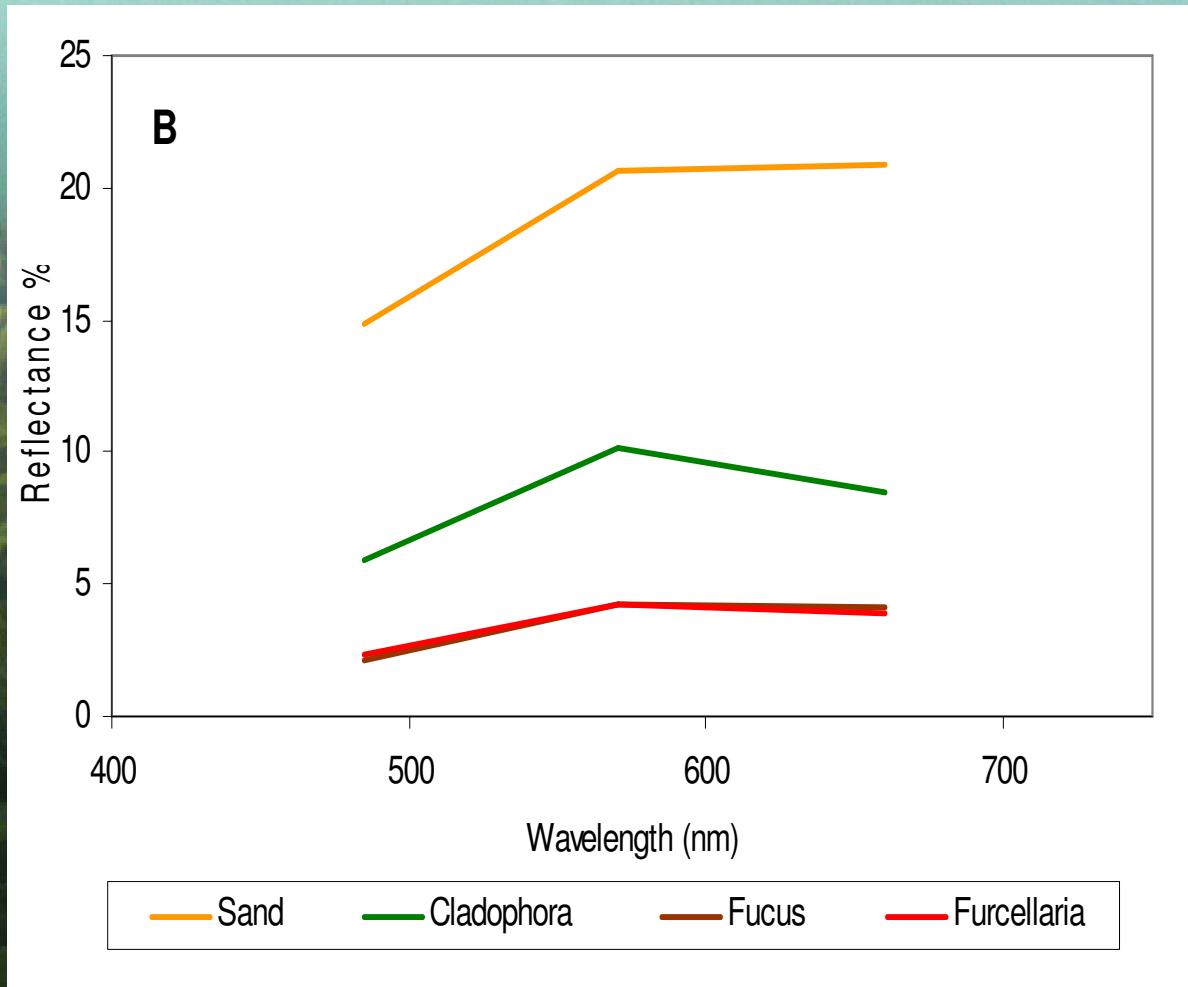
Fucus, 4 m deep water

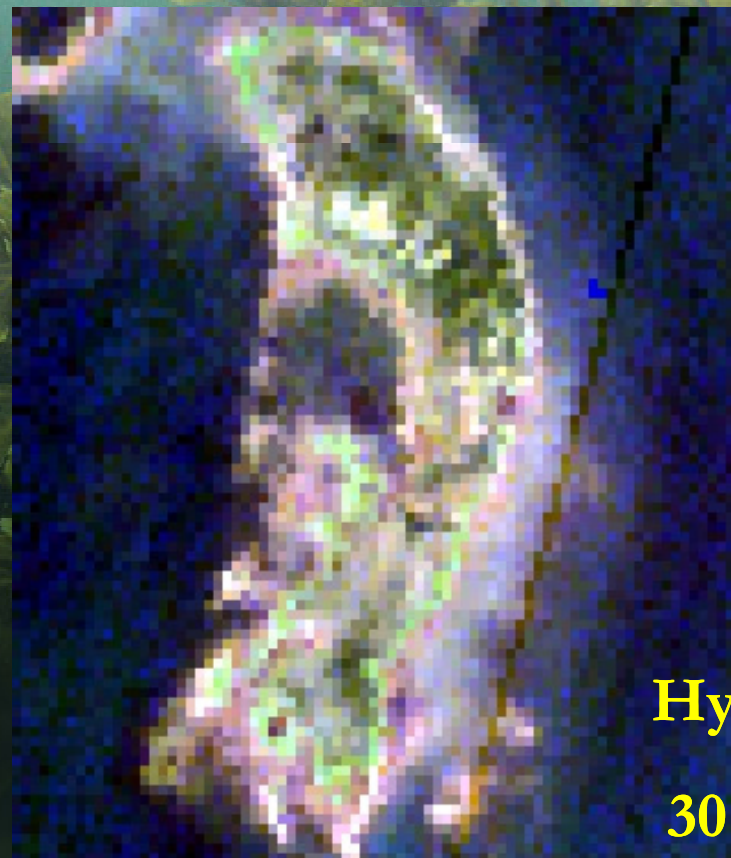
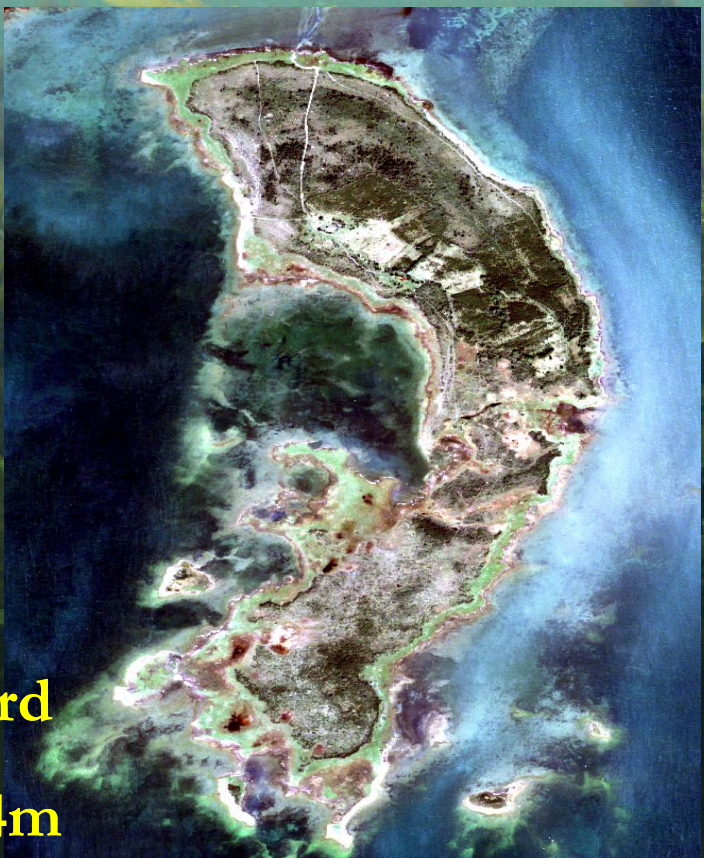
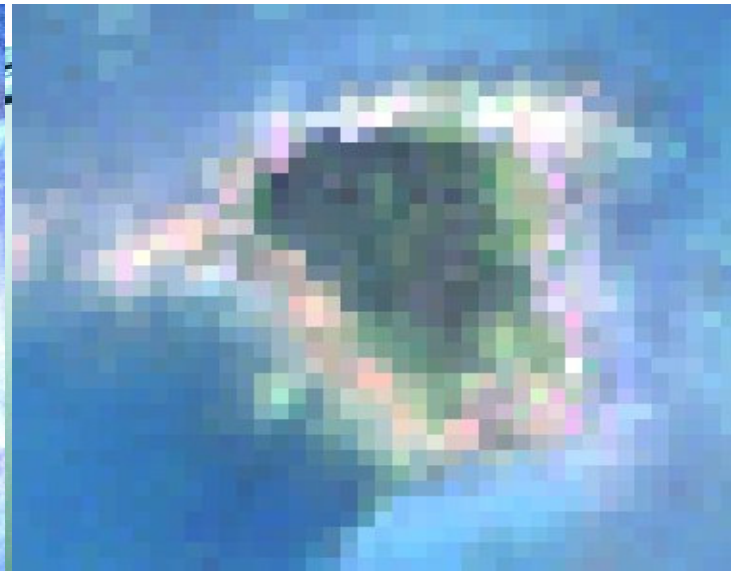


Fucus, 5 m deep water



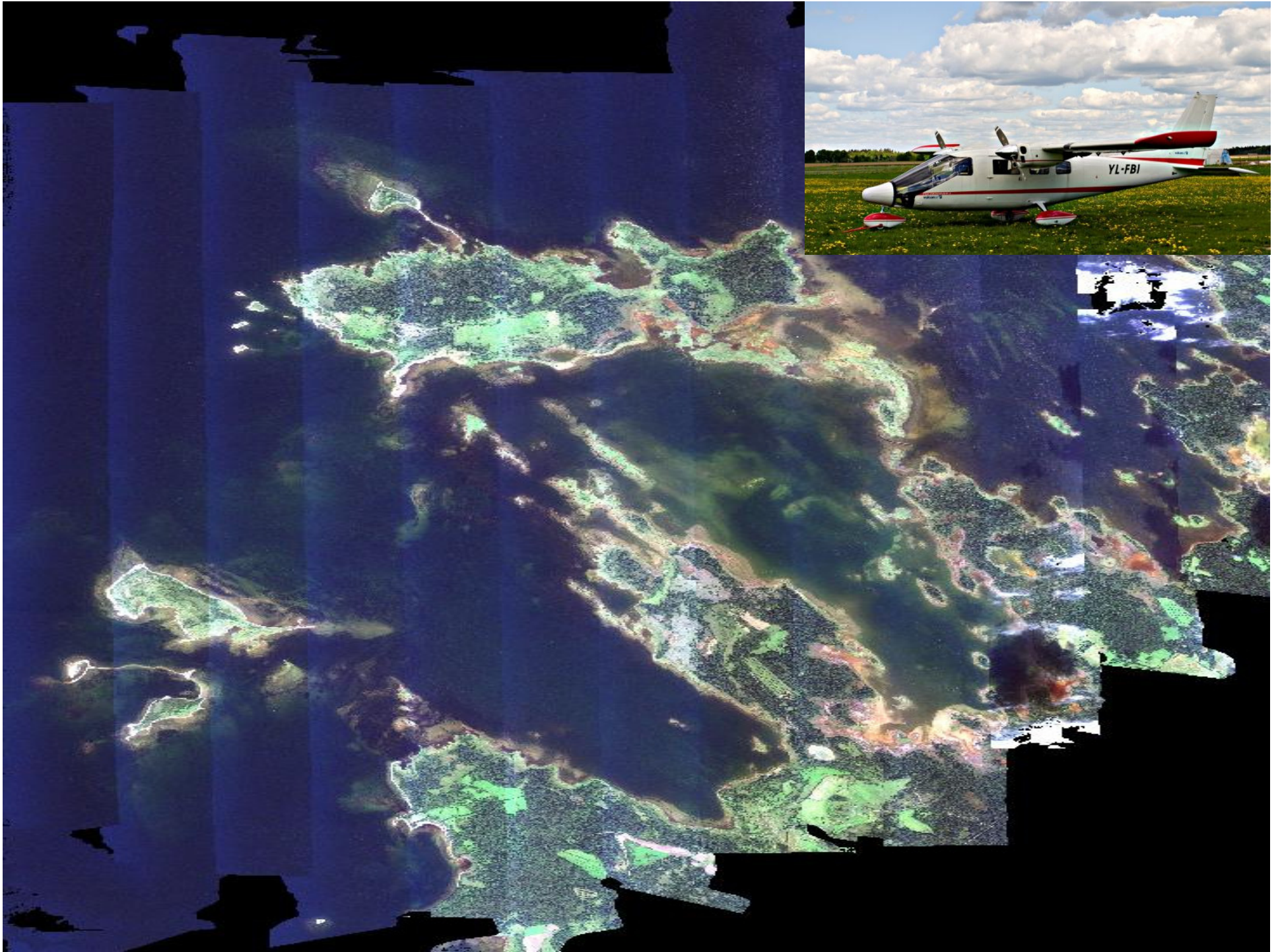
Spectral resolution of multispectral sensors



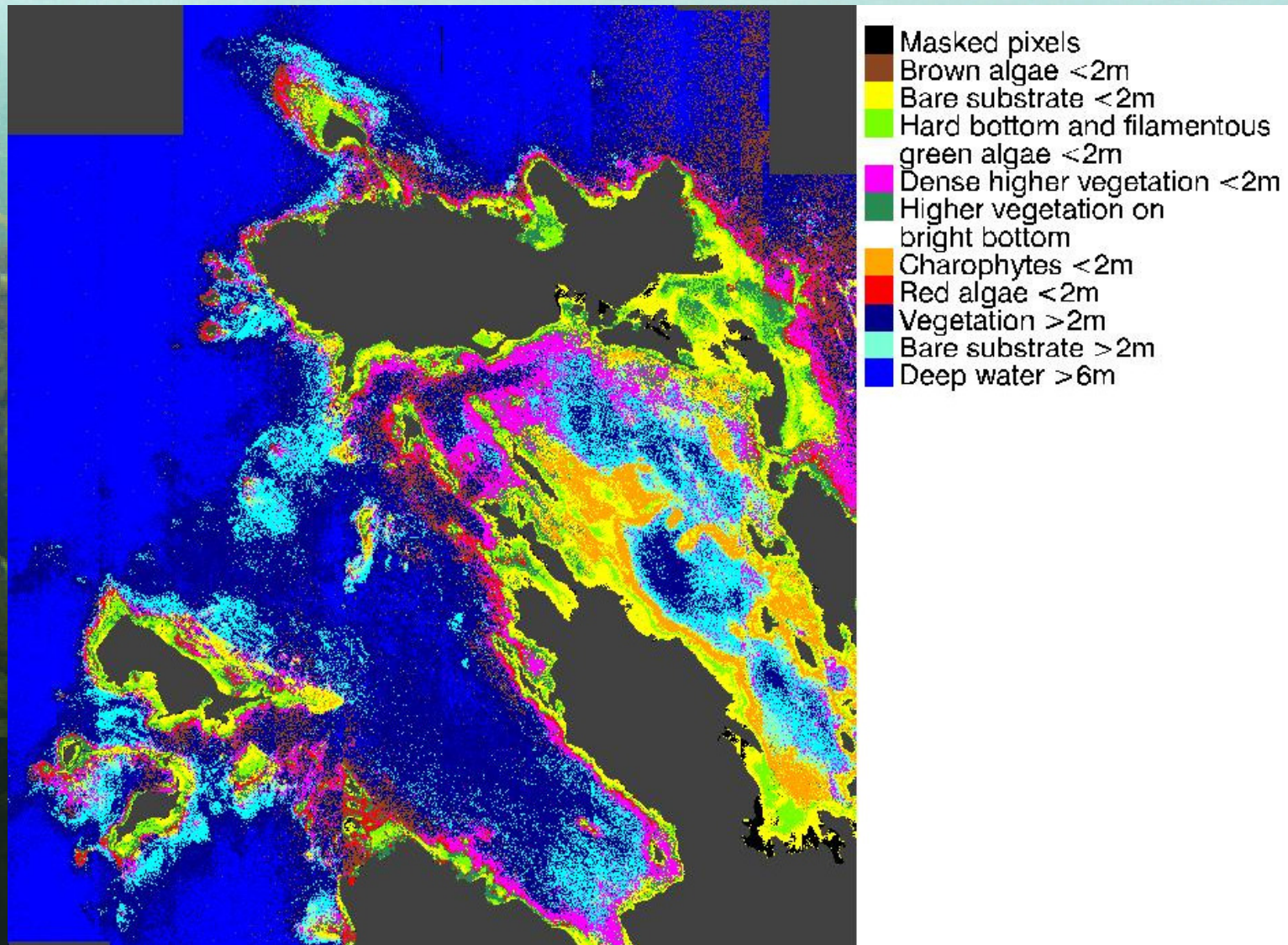


Quickbird
2.4 x 2.4m

Hyperion
30 x 30m



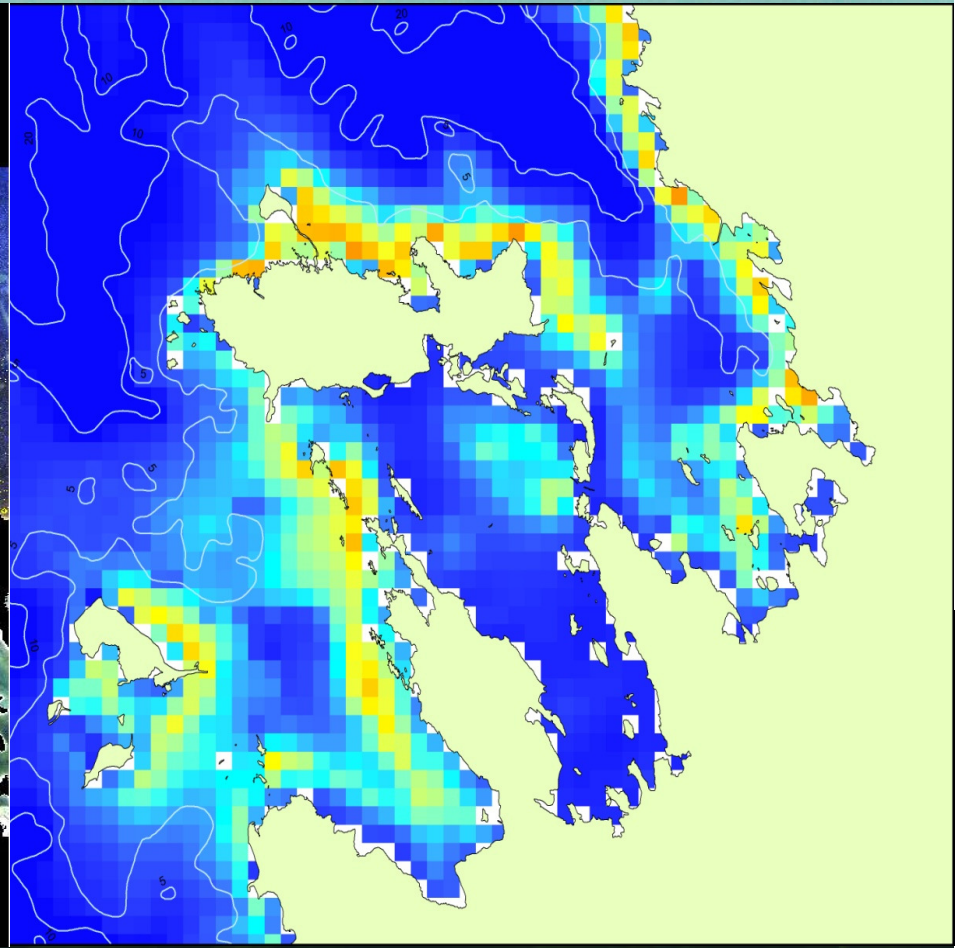
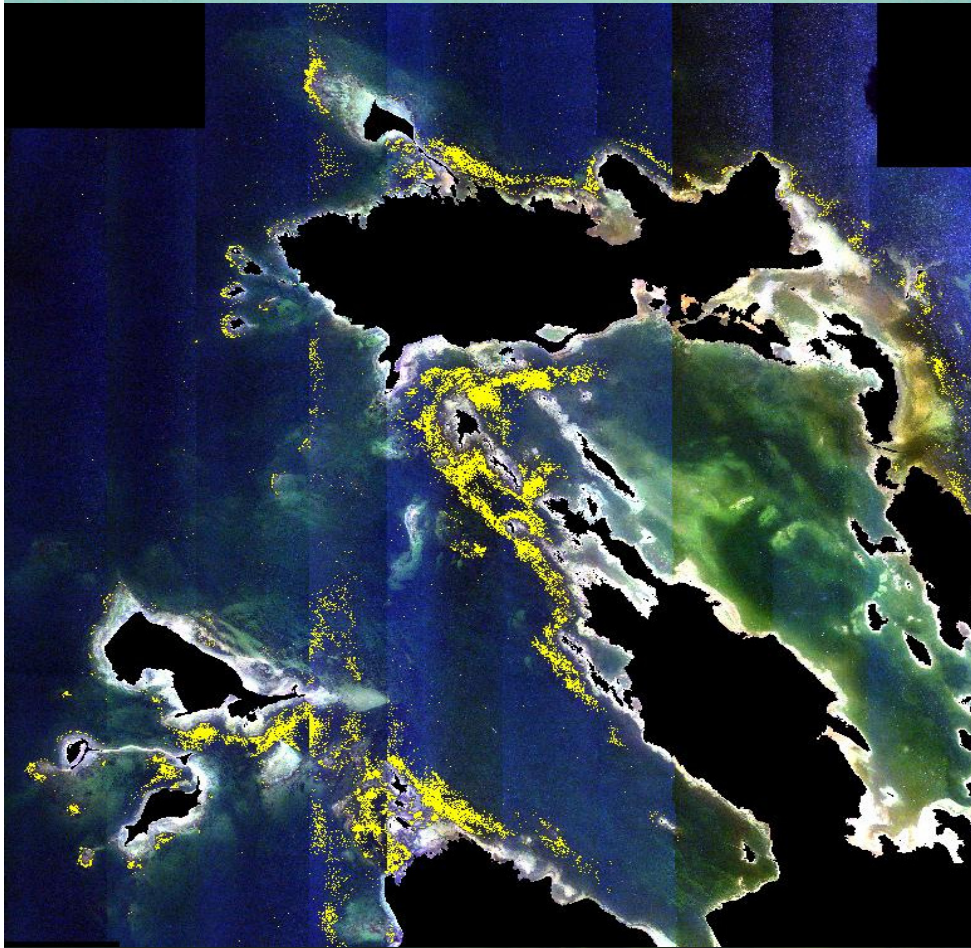
Habitat map of Vilsandi area

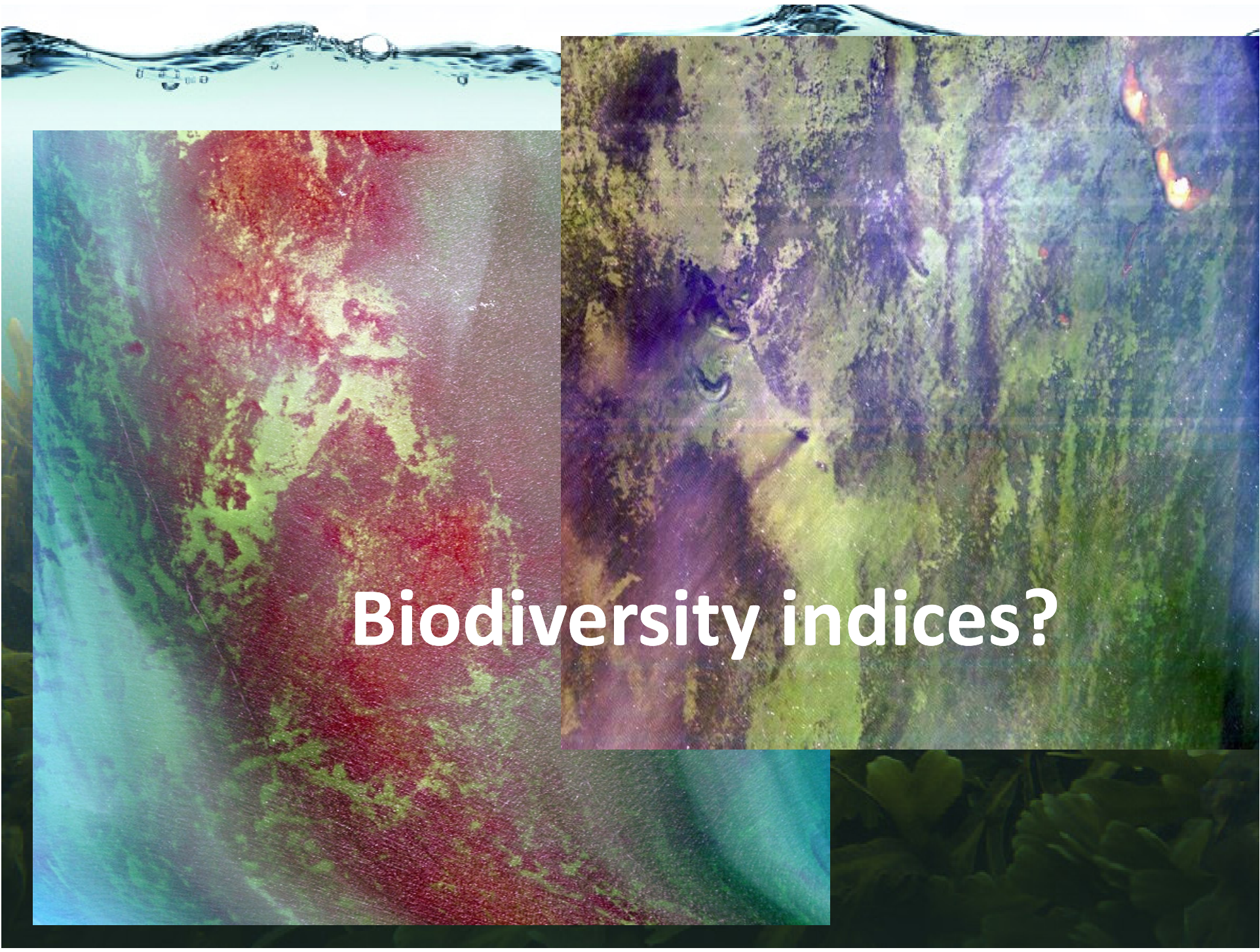


Fucus vesiculosus

Remote sensing

Model



The background of the slide is a composite of underwater photographs. At the top, there's a horizontal strip showing water surface ripples. Below this, the left side features a large, vibrant coral reef with red and yellow patches. The right side shows a different underwater scene with green and purple coral, and two small, glowing orange fish in the upper right. The bottom right corner shows dark, leafy plants. The text "Biodiversity indices?" is centered in white, bold font.

Biodiversity indices?

Thank you!



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2007-2013



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