

A WINDOW TO THE SEA: OPTIMIZING ENVIRONMENTAL INDICATORS FOR THE EVALUATION OF COASTAL RISKS IN THE GALICIA-NORTHERN PORTUGAL EUROREGION

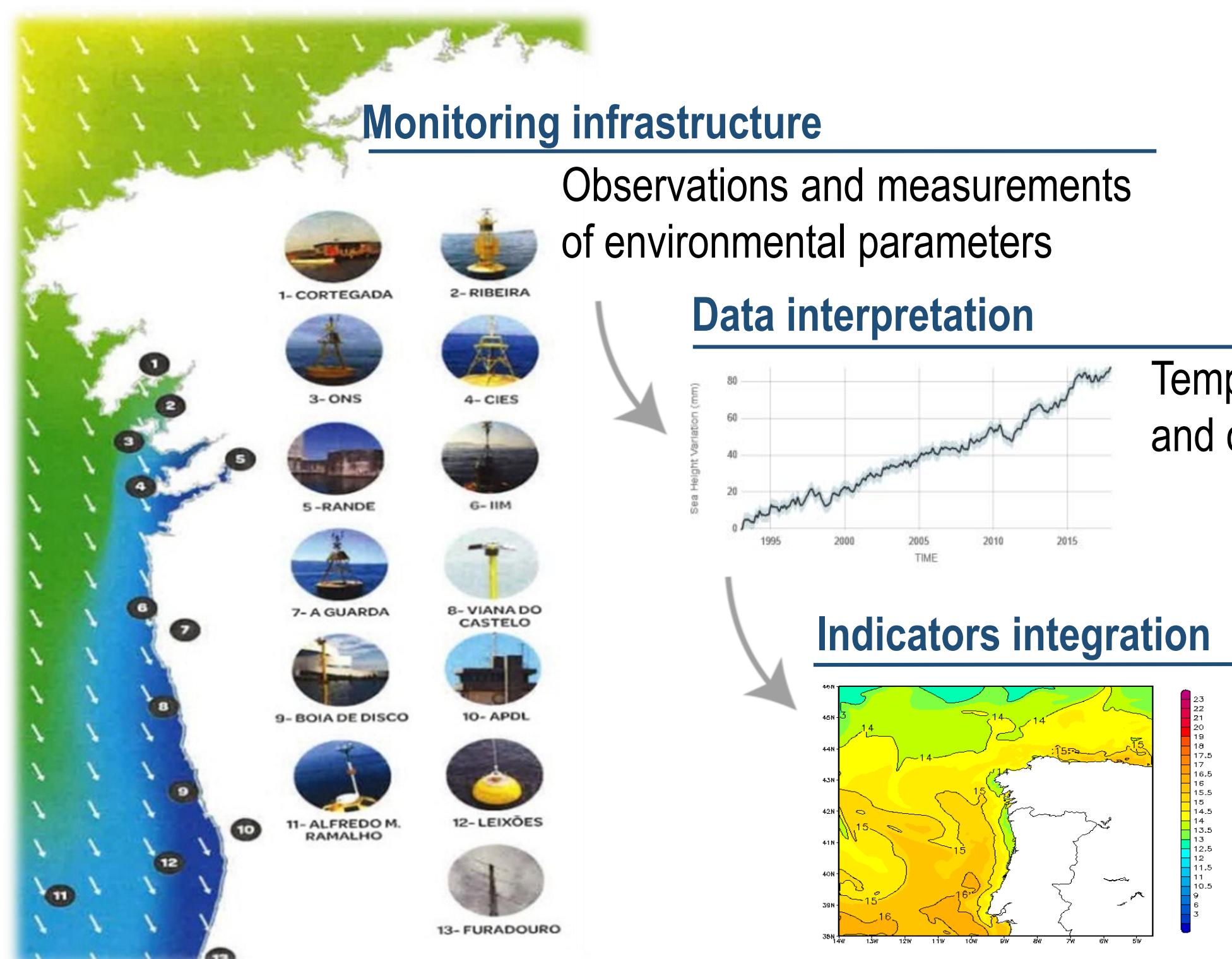
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A WINDOW TO THE SEA:

Environmental indicators are fundamental tools for the evaluation and mitigation of environmental risks, showing the current state and helping to predict future changes on ecosystem health regarding environmental risks. The framework of the RAIA observatory (www.marnaraia.org), identified 38 environmental indicators, in which 12 key risks affecting the ecosystem services of the Euroregion Galicia-Northern Portugal have been evaluated. The objective of this initiative is to optimize and analyze the environmental indicators identified for the Euroregion and make them available through a Web service that allows users to get information on the current state and evolution of the ecosystem health.

Current data analysis showed that the Euroregion's ecosystems are in good health, but a follow-up of the time evolution of the indicators is key to detect future changes on them that can be used as early detectors of the vulnerability to specific environmental risks.

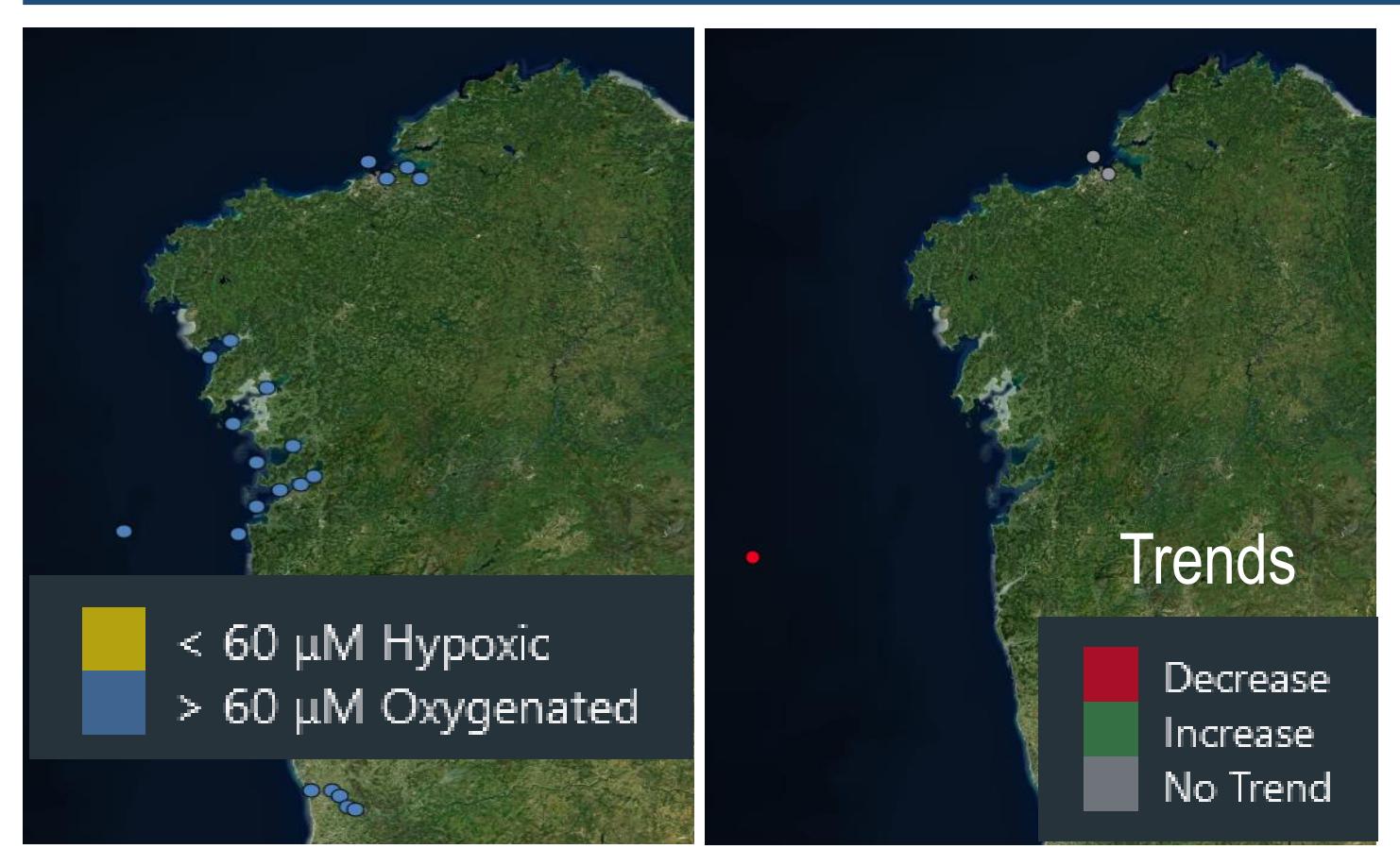
Raiá | Observatorio Oceanográfico da Marxe Ibérica



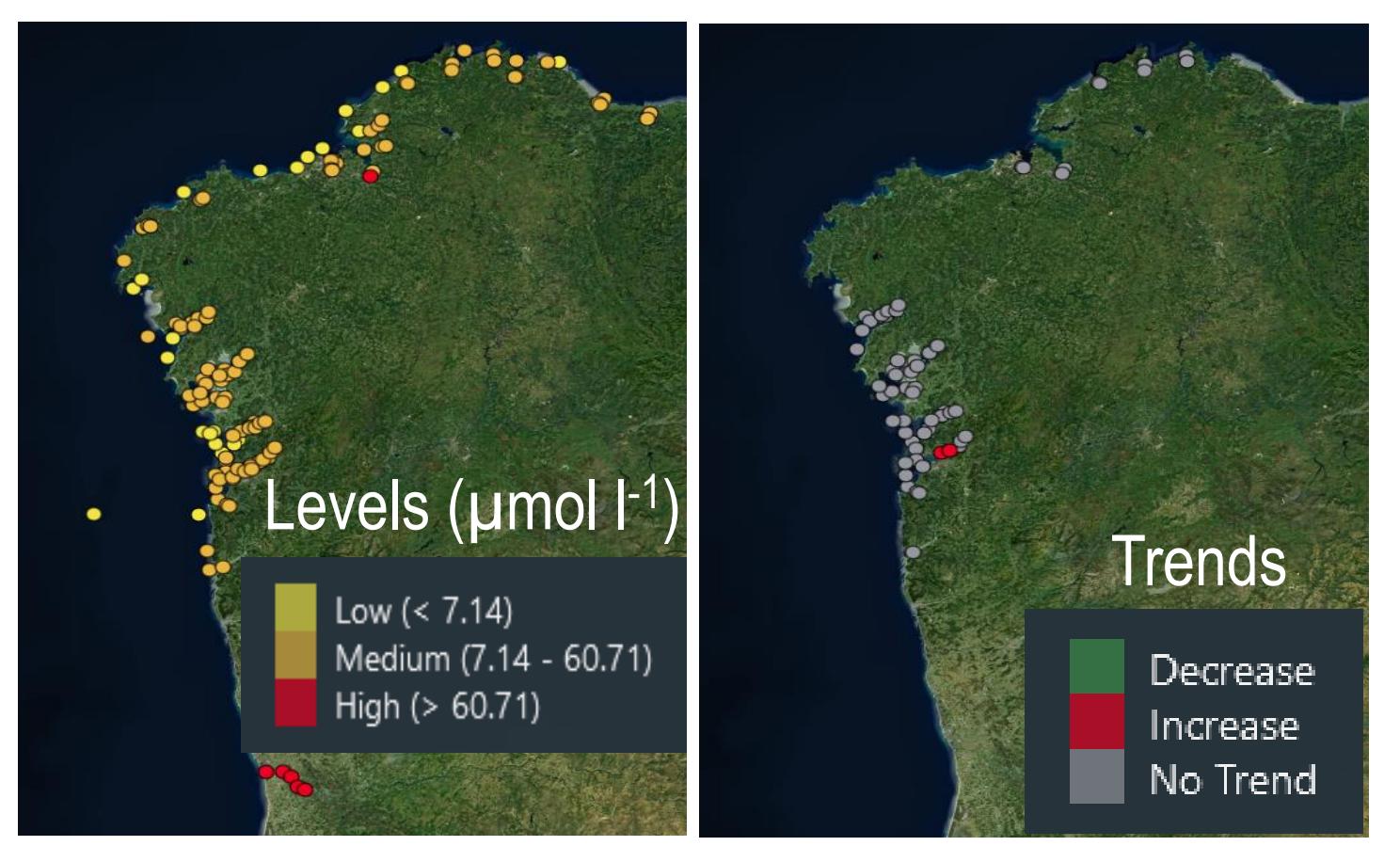
Environmental Indicator definition

Measure, generally quantitative, that can be used to illustrate and communicate complex environmental phenomena simply, including trends and progress over time, and thus helps provide insight into the state of the environment (*EEA, 2014).

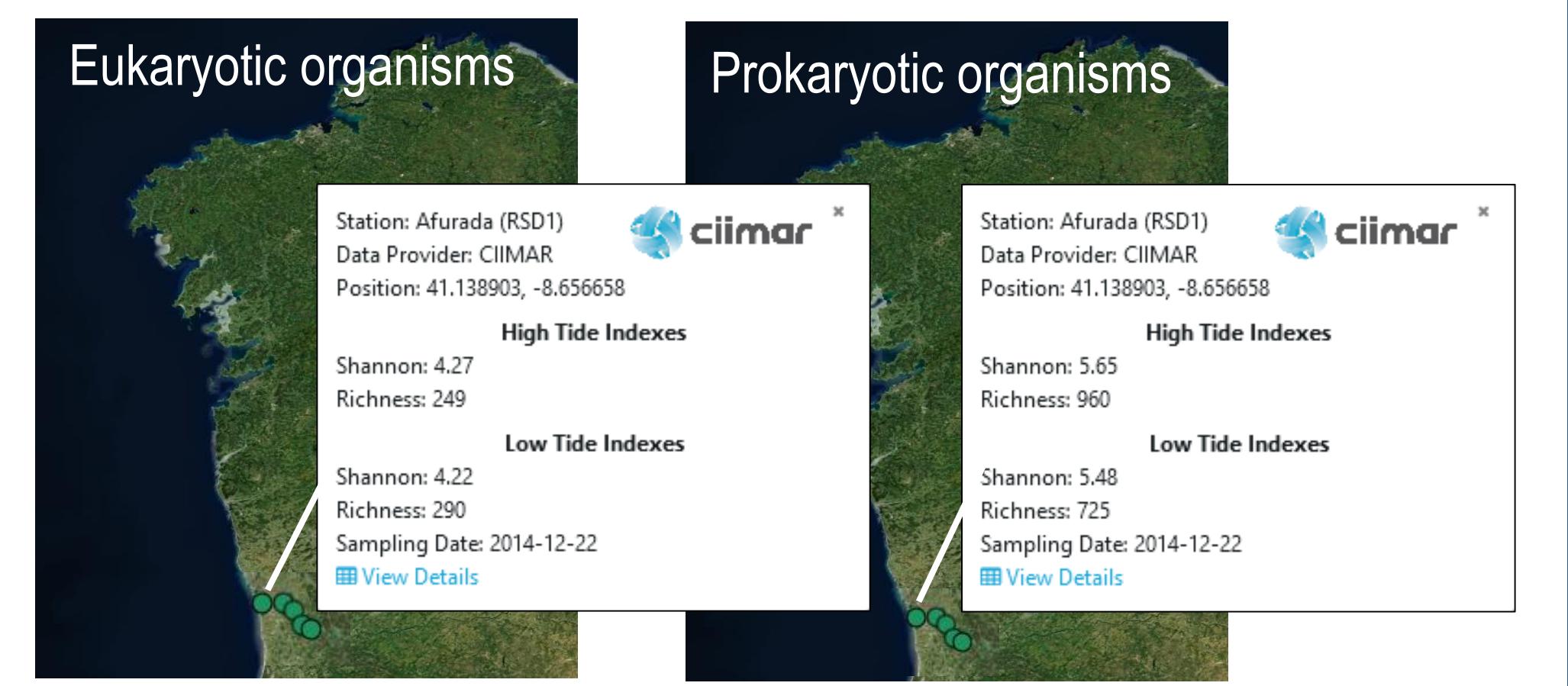
Key Risk: DEOXYGENATION Indicator: OXYGEN LEVELS AT BOTTOM DEPTH



Key Risk: EUTROPHICATION Indicator: NITRATE LEVEL DURING WINTER



Key Risks: LOSS OF GENETIC DIVERSITY Indicator: PLANKTONIC DIVERSITY

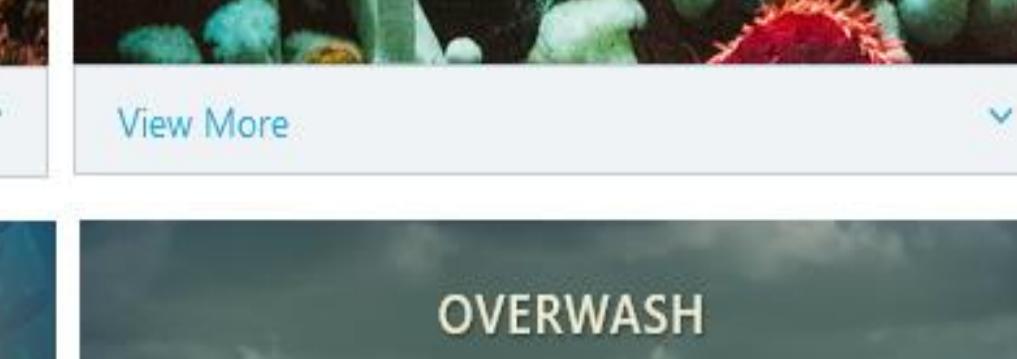
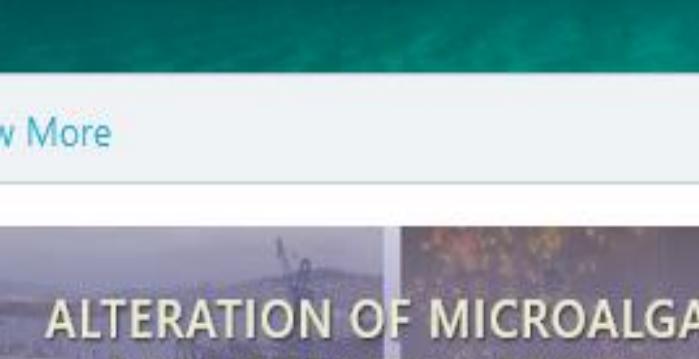


DEOXYGENATION

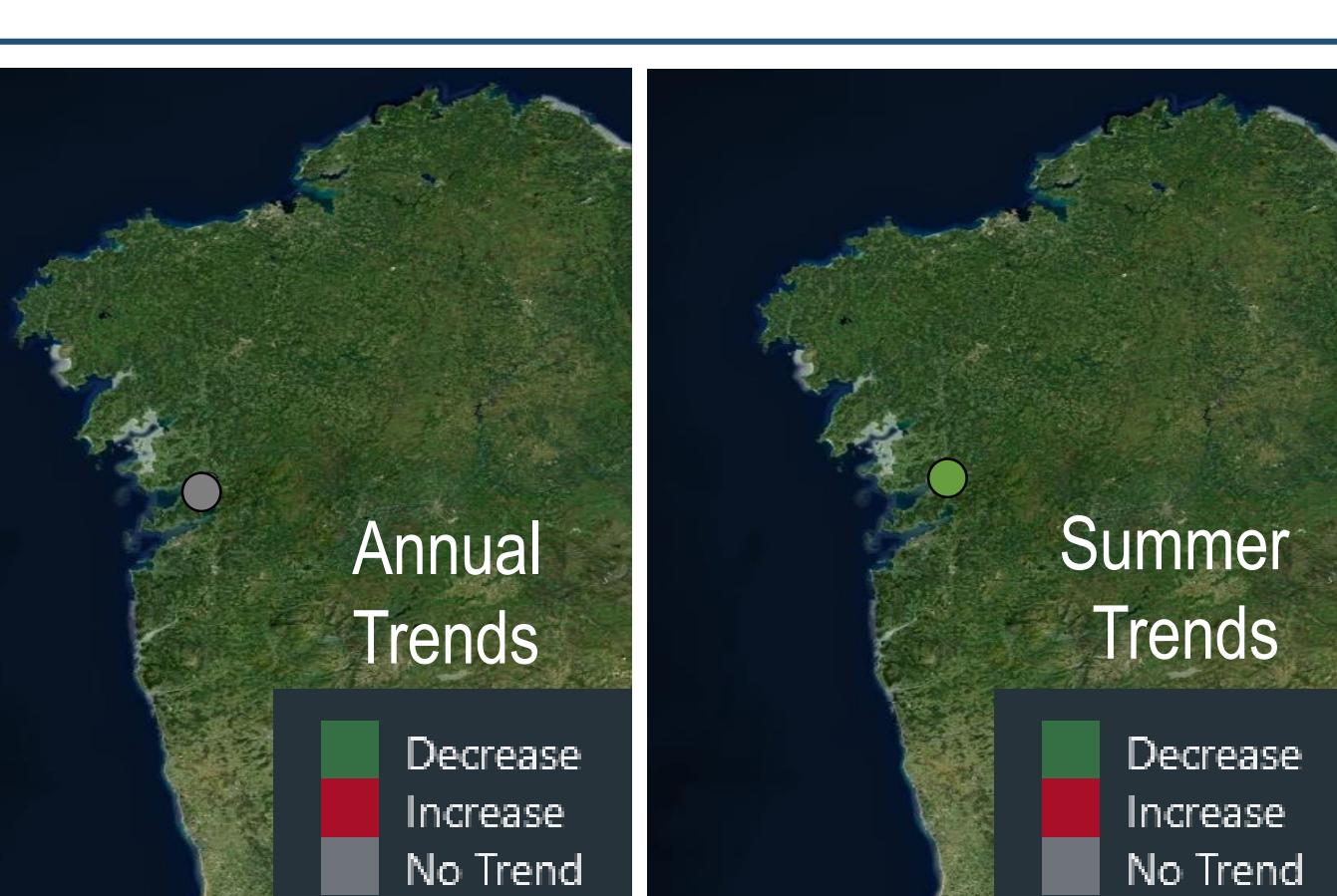
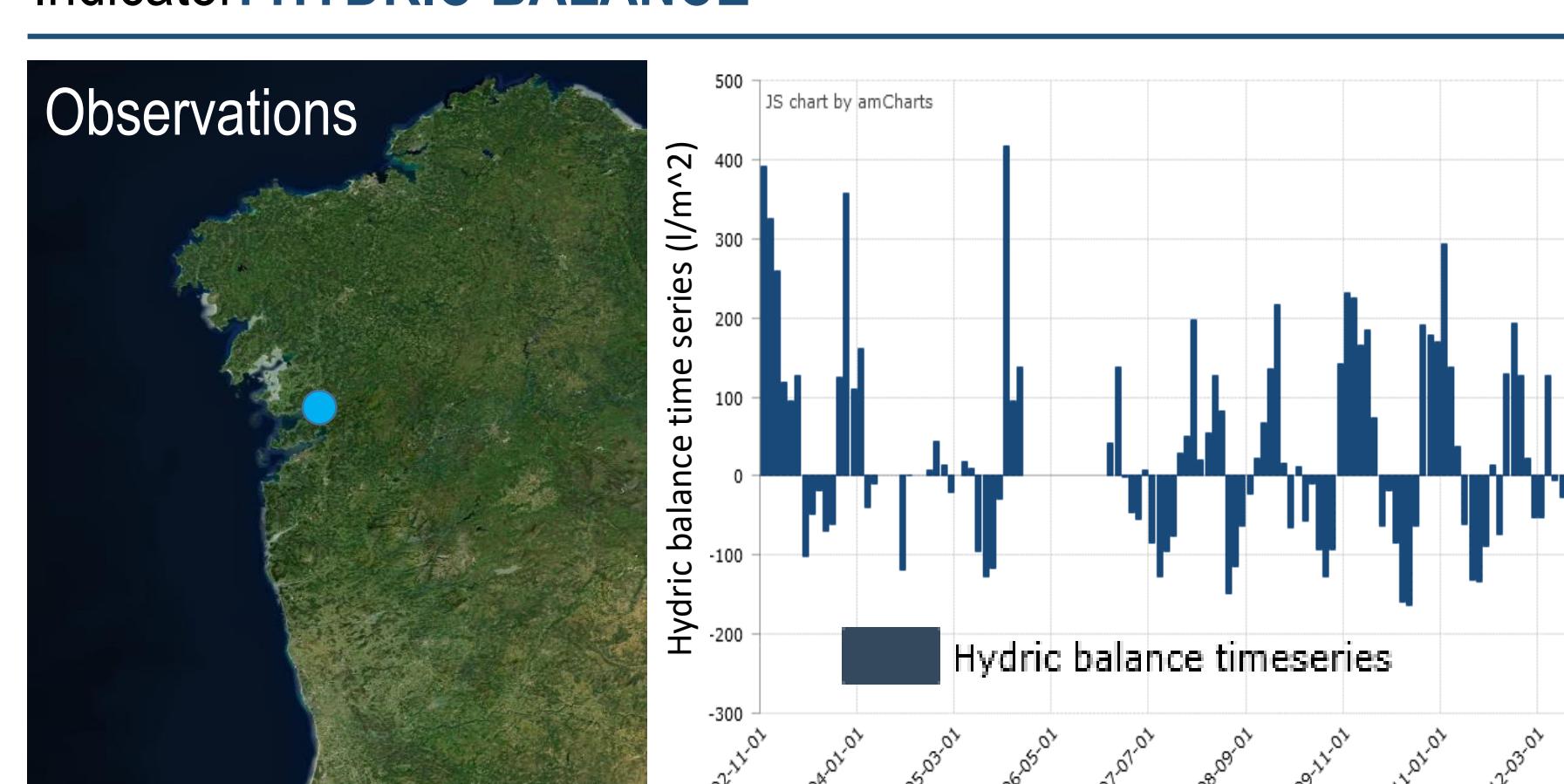
EUTROPHICATION

OCEAN WARMING

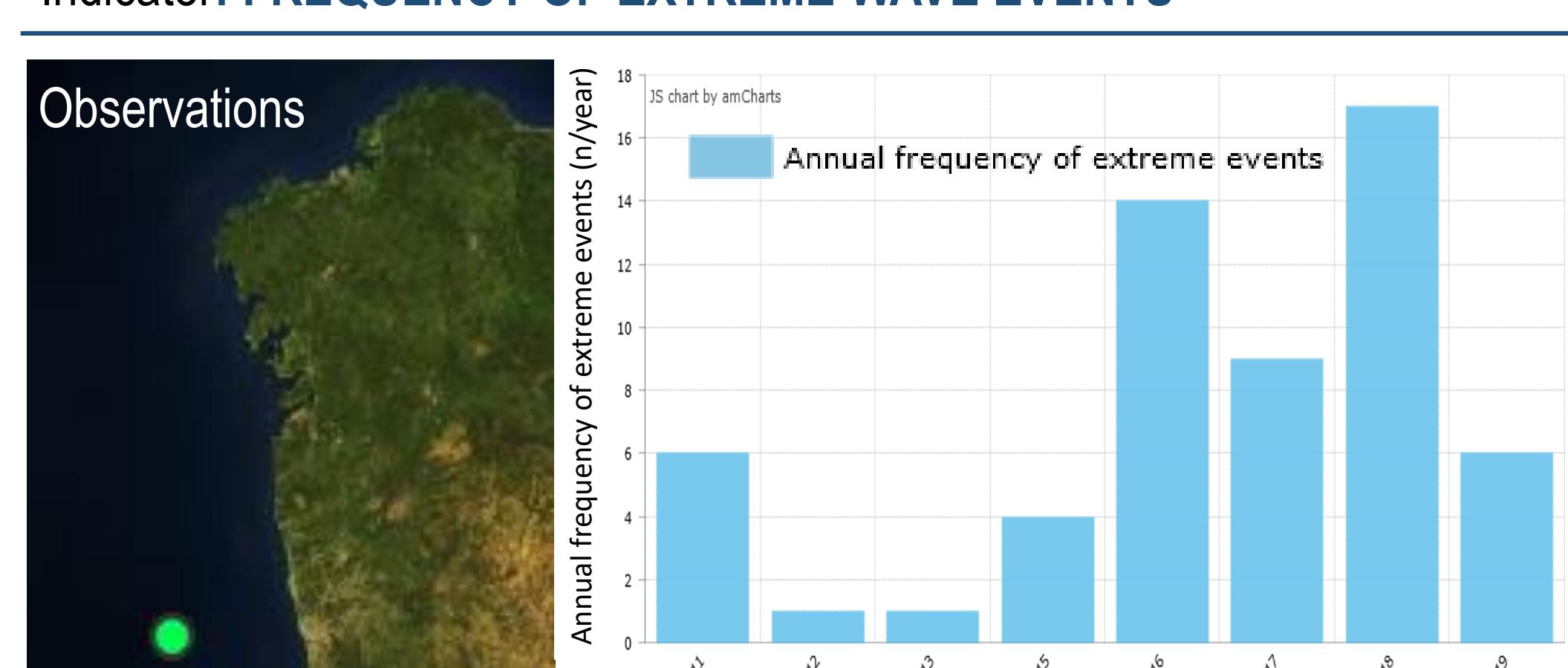
LOSS OF GENETIC DIVERSITY



Key Risks: ALTERATIONS OF SALINITY; HYDRODYNAMIC ALTERATIONS Indicator: HYDRIC BALANCE



Key Risks: COASTAL EROSION; COASTAL INUNDATION; OVERWASH Indicator: FREQUENCY OF EXTREME WAVE EVENTS



*EUROPEAN ENVIRONMENTAL AGENCY (EEA) 2014. Digest of EEA indicators. Technical report, 8/2014.