

Remote Sensing of Urban Stream Eutrophication and Its Implications for Public Health

Stratos KOKOLAKIS^{a,b}, Eleni KOKINO^{a,b}, Matenia KARAGIANNIDOY^b and Catherine CHRONAKI^b

^aDepartment of Agriculture, Hellenic Mediterranean University, Estavromenos, 71410 Heraklion, Greece,

^bHL7 Europe, Square de Meeûs 38/40, 1000 Brussels, Belgium

What is Eutrophication?



It's when excess nutrients like "N" and "P" find their way into water



Usual Suspects:

1. Agricultural runoff
2. Industrial runoff
3. Urban runoff



Why should we monitor Eutrophication?



Effects on Human health

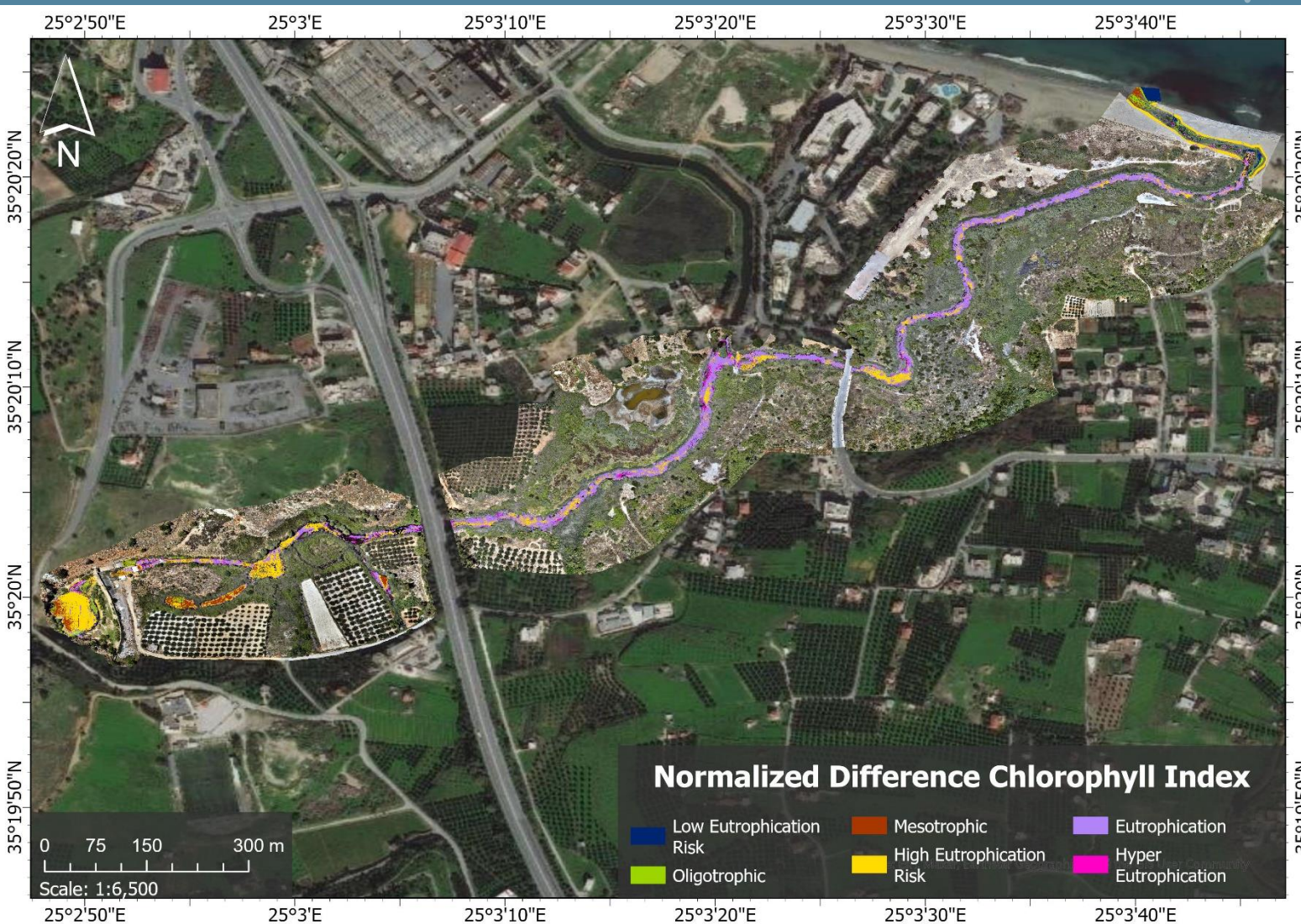
- Skin irritations
- Gastrointestinal diseases
- Respiratory problems
- Liver damage
- Convulsions



Effects on Environment

- Excessive plant growth
- Algal growth
- Hypoxic and anoxic conditions
- Decline in biodiversity
- Shift in the dominant biota

Monitoring of eutrophication in urban streams, a case study of Almyros stream



- Almyros stream due to its karstic nature prolongs the persistence of pollutants and hinder recovery
- Almyros is mostly affected by agricultural and urban runoff.
- Almyros has been characterized as eutrophic by NDCI Index

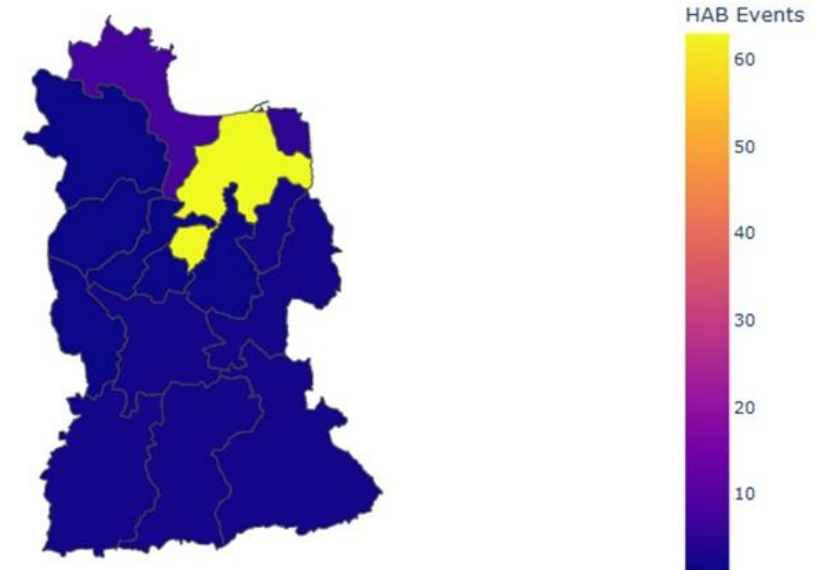
Harmful Algal Bloom (HAB) Dashboard

HAB Events & Human Cases by Municipal unit in Heraklion, Crete

Select Year:

2021

HAB Events in 2021



Totals for 2021 (click a region for details)



HAB Dashboard

Features and capabilities

1. Interactive map

2. Year selector

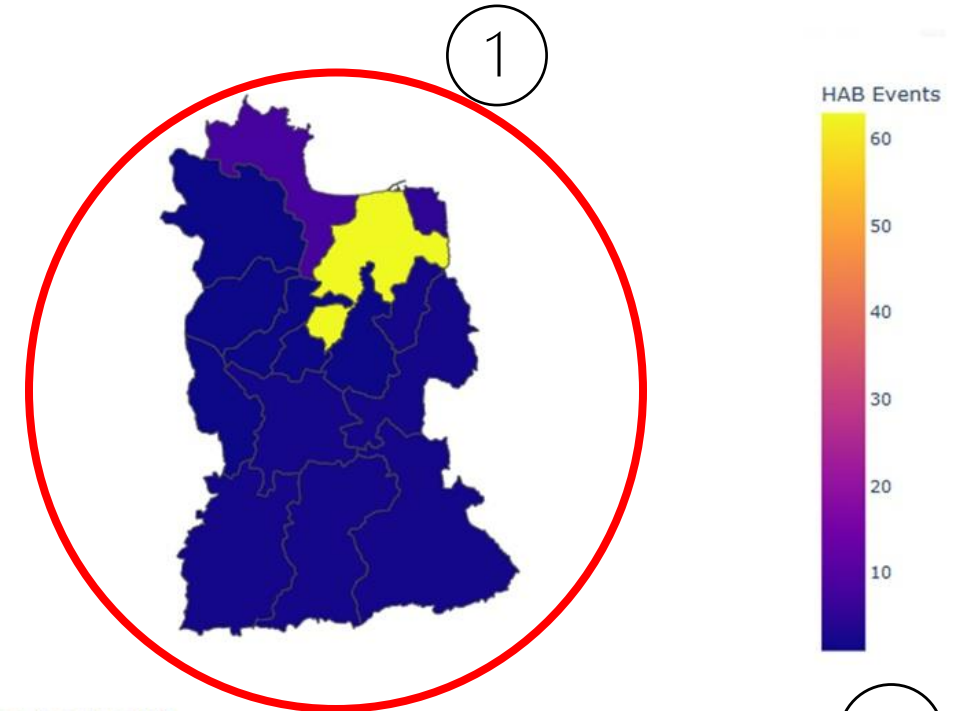
3. Adaptive bar chart

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HAB Dashboard

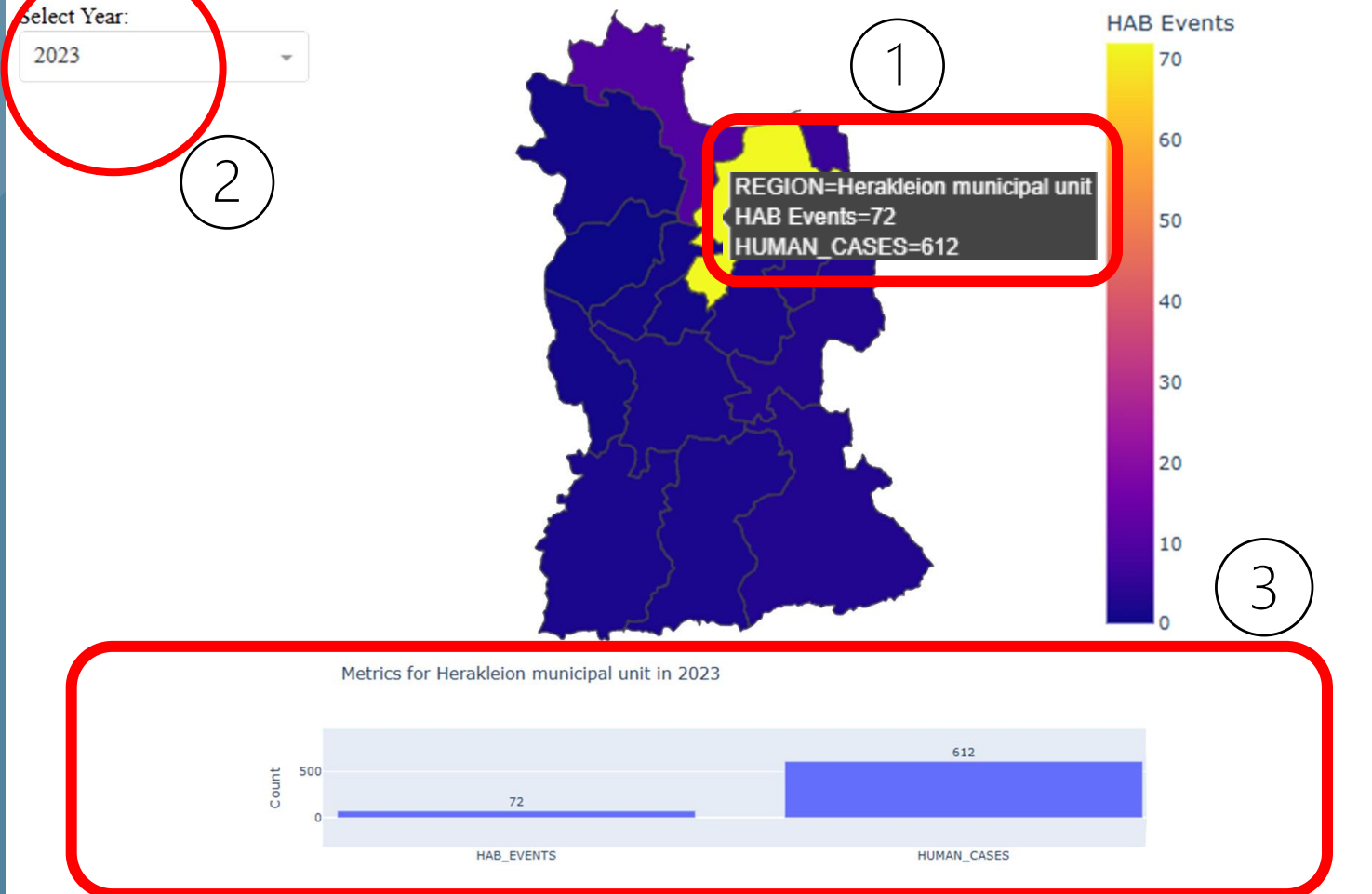
Features showcase

1. Interactive map

2. Year selector

3. Adaptive bar chart

HAB Events & Human Cases by Municipal unit in Heraklion, Crete



Conclusions



Early Detection & Intervention



Public Health Integration



**Path Forward – Health Data
Integration**



Addressing Policy Gaps

Thank you for your attention



One AquaHealth Web-page

<https://www.oneaquahealth.eu>



LinkedIn

OneAquaHealth Project



stratos.kokolakis@hl7europe.org

Acknowledgments

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