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INTCATCH 2020 – Development and application of Novel, Integrated Tools for monitoring and managing catchments. Case study: Ter River (Catalonia, Spain).

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Project abstract

The **Ter River** is a Mediterranean river located in the north-west of Catalonia, Spain, on which there is a high human pressure due to the intensive livestock, the urban development and the industry, that depend on its waters. In addition to these considerable anthropogenic impacts, fluctuation in water discharge due to the Mediterranean climate creates variable conditions in the river.

The current methodology to characterize the status of the waters of a river present the following main problems:

- Large numbers of samples are needed to provide certainty and precision reporting;
- Costly sampling and over-sensitive laboratory chemical analysis;
- Data is always historic, so doesn't inform real time action;
- There is too much reliance on statutory bodies to do the work and their budgets are being reduced.

In order to provide a simpler and more reliable methodology, the **INTCATCH Project** emerges.

INTCATCH will

- Deliver water quality outcomes in a more flexible way and increase efficiency.
- Support more targeted, intensive investigation 'monitoring' that identifies sources & enables managing polluting sources.
- Demonstrate and assess low cost and effective treatment of diffuse pollution.
- Manage and communicate data and outcomes.
- Reduce barriers to new stakeholders to take up local monitoring, treatment, and data analysis.
- Harness citizen science capability.

What is INTCATCH about?

INNOVATION

- Sensors
- Robotic / autonomous boats
- Biosensors
- Mobile genomics laboratory
- Decision support system
- Data visualisation

DEMOSTRATION

- Lake Garda (Italy)
- Urban rivers in London
- Rural river in Norfolk (UK)
- With stormwater / run-off treatment
- River Ter system in Spain
- Lake Yliki in Greece

MARKET UPTAKE

- Dissemination
- Exploitation
- Training
- Business model
- INTCATCH Expert Network
- INTCATCH Business Franchises
- Full product demonstration (2019)

Testing Platypus boat at the Ter River

The boats were tested at the end of March at the Ter River, with temperature, electric conductivity and dissolved oxygen probes.



Fig. 1. INTCATCH Platypus boat testing at the Sorral Island (Vic, 31.03.2017)

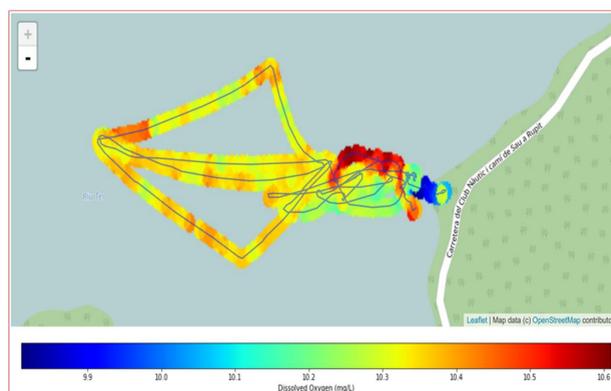


Fig. 2. INTCATCH boat oxygen dissolved results at Sau Reservoir (Vilanova de Sau, Catalonia, 17.03.30)

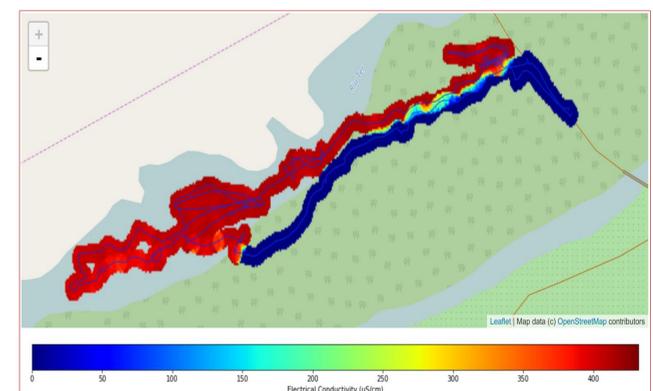


Fig. 3. INTCATCH boat electric conductivity results at the Sorral Island (Masies de Voltrega, Catalonia, 17.03.30)



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