Citizen-Science: students and citizens for healthy rivers and seas

POSIEDOMM - FreshWater Watch citizen science project was created to promote public stewardship of local aquatic resources, while helping to quantify the type and quantity of macroplastics entering key Tuscan rivers as well as reducing that reaching the Mediterranean Sea.

The Arno River catchment and sampling sites

- 22 high-school students and science teacher of IV D/L, “Sustainable School Communities”, Florence
- 20 citizens supported by the municipality of Tavarnelle Val di Pesa, winner in 2012 for “Effective eco-innovations supporting improvements in environmental performance” (recycling rate > 86% in 2015)

The majority of debris along the two study rivers were items discarded through recreational activities from urban/residential centers and urban leisure parks. In some places, the human impact is also visible from the input of nutrients (phosphates) in the aquatic environments. Most frequent litter items were associated to smoking activities, bags and bottles, fishing equipments and illegal dumping.

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Preventing marine plastic pollution and promoting public stewardship through citizen science

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Next challenge: creating a citizen scientist microplastics platform to provide consistent and comparative geospatial data to complement marine studies, in collaboration with Earthwatch Europe, UK.