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TOXIC CYANOBACTERIA AND CYANOTOXINS MONITORING STUDIES IN THE FRAMEWORK OF TOXICROP PROJECT

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Fresh water resources in many countries are vulnerable due to their biogeographical and climatic characteristics. Moreover higher water consumption and higher human impacts in the downstream water bodies is leading to a higher eutrophication with increased incidence and intensity of cyanobacteria blooms and their toxins. The scarcity of clean water resources leads to the compulsory use of water containing cyanobacteria and their toxins in agriculture. TOXICROP is a European project funded by the Marie Skłodowska-Curie Research and Innovation Staff Exchange (RISE) programme aimed, among other objectives, to map agricultural risk areas of cyanotoxin occurrence, in countries that participate in the Project. In 2019 two monitoring campaigns were accomplished, in Pisão reservoir, located in the South region of Portugal, in September 2019, and in El Paño an Aguada-Blanca reservoirs, located in the Andean Plateau, in the region of Arequipa, Peru, in October 2019. Sampling points were identified in these lakes and 1L samples were collected with assistance of a boat. Other water infrastructures relevant for this study, i.e., waterways, irrigation canals, irrigation hydrants and small irrigation reservoirs, were identified and sampled as well. Moreover, soil and plant samples were collected from an important agricultural area in the region of Arequipa city, which will be also subject to chemical analyses for detection and quantification of cyanotoxins. Here we present the monitoring work performed in the field, in the framework of TOXICROP project.

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