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## **Presence and spatial distribution of pharmaceuticals compounds in waters of protected wetlands (Marjal de Pego-Oliva, Spain)**

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Detection and spatial distribution of 15 pharmaceuticals in surface waters was investigated to determine hydrological connectivity between urban, agriculture and natural environments. Solid-Phase Extraction and Liquid Chromatography tandem Mass Spectrometry was applied to 32 water samples. To determine spatial incidence of contaminants, analytical results of target compounds were georeferenced and integrated into a Geographical Information Systems structure together with layers of land use-cover parcels, location of sewage water treatment plants (SWTPs) and river and irrigation networks. The methodology was applied to “La marjal de Pego-Oliva” natural park, a protected coastal wetlands located in Eastern Spain. All pharmaceuticals were found in concentrations ranging from values bellow limits of quantification to 112.19 ng/L. The geographical distribution of compounds shows hydrological connectivity between SWTPs, agricultural and natural environments.

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