

Online Resource 3

Title: Human activities disrupt the temporal dynamics of salinity in Spanish rivers

Journal name: Hydrobiologia

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Table S5. Electrical conductivity (mean, maximum and minimum values) reported in Spanish rivers affected by different human activities.

Study	River	Human drivers of salinization	Mean conductivity (mS/cm)	Minimum conductivity (mS/cm)	Maximum conductivity (mS/cm)	Reference
Seasonal water quality variations in a river affected by acid mine drainage: the Odiel River (South West Spain)	Odiel River	Mining	1.4	0.16	4.8	Oliás et al., 2004
Evaluation of natural and anthropogenic influences on the Guadalquivir River (Spain) by dissolved heavy metals and nutrients	Guadalquivir River	Sewage Agriculture	8.8	0.68	50.7	Mendiguchia et al., 2007.
Trend study and assessment of surface water quality in the Ebro River (Spain)	Ebro river	Low pollution regions (low population density)	0.5	0.2	0.7	Bouza-Deaño et al., 2008
		High pollution zones (sewage, agriculture)	1.1	0.8	1.3	
		Moderate pollution (downstream region)	0.9	0.8	1	
Hydrochemical characteristics and seasonal influence on the pollution by acid mine drainage	Odiel river Basin (including	Mining	2.9	0.1	18.5	Sarmiento et al., 2009

Study	River	Human drivers of salinization	Mean conductivity (mS/cm)	Minimum conductivity (mS/cm)	Maximum conductivity (mS/cm)	Reference
in the Odiel river Basin (SW Spain)	the Tinto river)					
Pollution by psychoactive pharmaceuticals in the Rivers of Madrid metropolitan area (Spain)	Jarama river		0.03	-	-	González-Alonso et al., 2010
	Bodonal stream		0.6	0.5	0.8	
	Manzanres river		0.6	0.3	0.9	
	Guadarrama river		0.2	0.02	0.3	
	Soto Stream	Sewage	0.8	-	-	
	Henares river		0.7	0.5	0.8	
	Tajo river		1.1	1	1.3	
Toxicity and potential risk assessment of a river polluted by acid mine drainage in the Iberian Pyrite Belt (SW Spain)	Villar stream	Mining	-	2.9	3.3	Sarmiento et al., 2011

Study	River	Human drivers of salinization	Mean conductivity (mS/cm)	Minimum conductivity (mS/cm)	Maximum conductivity (mS/cm)	Reference
Detection of veterinary drug residues in surface waters collected nearby farming areas in Galicia, North of Spain	Miño river	Agriculture Pasture Urban	0.12	0.09	0.17	Iglesias et al., 2013.
	Asma River		0.06	0.04	0.08	
Impact of potash mining in streams: The Llobregat basin (northeast Spain) as a case study	d'Or Stream	Mining	6.2	1.4	11	Ladrera et al., 2016.
	Llobregat River		-	-	2.5	
	Conangle Stream		-	-	4..5	
	Soldevila Stream		-	-	132.4	
Effects of anthropogenic pollution and hydrological variation on macroinvertebrates in Mediterranean rivers: A case-study in the upper Tagus river basin (Spain)	Upper Tagus river basin	Natural	1.8	-	-	Arenas-Sánchez et al., 2021
		Agriculture	5	-	-	
		Urban	1.4	-	-	

Study	River	Human drivers of salinization	Mean conductivity (mS/cm)	Minimum conductivity (mS/cm)	Maximum conductivity (mS/cm)	Reference
Hydrogeological, hydrodynamic and anthropogenic factors affecting the spread of pharmaceuticals and pesticides in water resources of the Granada plain (Spain)	Genil river	Agriculture (irrigation) Urban area	1.1	0.7	1.3	Llamas et al., 2022
