

SPECIAL SESSION:

Ecology and management of Temporary Freshwater Systems

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ABSTRACT

A large proportion of the World's freshwaters are experiencing drying events, and the extent of these events is increasing because of global change. Intensified research over the past decades has shed new light on the ecology of these ecosystems that have been overlooked by freshwater scientists for too long. Temporary freshwaters (TF), including streams, rivers, lakes, ponds, reservoirs and wetlands, contribute substantially to biodiversity and biogeochemical processing and provide important ecosystem services to human societies. Following the growing interest from the academic sphere, TF are receiving increased attention from water resource managers. Organized by the International Network on Limnology of Drylands (INLD) and the COST Action Science and Management of Intermittent Rivers and Ephemeral Streams (SMIRES), this special session will bring together ecologists to present their latest research on the ecology of TF in the context of global change and to address potential challenges in managing these prevalent ecosystems.

Key Words: freshwaters, temporary, intermittent, global change, desertification, ecology, management

	Speaker	Institution	Country	Title
1	Marisa Arce	CEBAS-CSIC	Spain	Understanding the functioning of dry riverbeds through soil biogeochemistry
2	Alex Laini	Parma University	Italy	Flow intermittence affects macroinvertebrate community structure in Apennines streams
3	Amelie Barthes	Independent researcher	France	Effects of water intermittency on diatom, macroinvertebrate and ground beetle communities in streams of southern Portugal
4	Annamaria Zoppini	IRSA-CNR	Italy	An integrated description of sediments in temporary rivers under drought conditions: chemical status and microbial properties
5	Antônio Camacho	University of Valencia	Spain	Modelling carbon and GHG fluxes in Iberian temporary saline lakes
6	Bianca Terra	Federal University of Ceara	Brazil	Are MMI good tools to evaluate ecological condition on temporary rivers? A glance on Brazilian semiarid intermittent rivers.
7	Carla Rezende	Federal University of Ceara	Brazil	Mechanism of species coexistence in intermittent streams"
8	Daniel von Schiller	UPV/EHU	Spain	A cross-continental analysis of sediment respiration pulses in non-perennial waterways in response to rewetting
9	Daniele Nizzoli	Parma University	Italy	Short term influence of sediment drying and organic matter enrichment on benthic metabolism, nitrogen and phosphorus recycling
10	Eleni Kalogianni	HCMR	Greece	Effects of flow intermittency and pollution on biota and ecosystem functioning in a Mediterranean river
11	Francisco Junior	Brasilia University	Brazil	" AquaRiparia: Sharing of Networks Researches for produce of the models for management of Watersheds"
12	Luciana Barbosa	Federal University of Paraiba	Brazil	The studies of temporary aquatic ecosystems in Drylands: a global scientometrical view
13	Maria del Mar Sánchez-Montoya	University of Murcia	Spain	Metacommunity dynamics of ground-dwelling arthropods in intermittent streams over the drying phase
14	Maria Helena Novais	University of Évora	Portugal	Diatoms and macroinvertebrates as tools for ecological water quality assessment in intermittent rivers (southern Portugal)
15	Maria Ilhéu	Evora University	Portugal	The biological invasions on Portuguese temporary freshwater systems

16	María Soria	University of Barcelona	Spain	Community responses to natural and anthropogenic disturbances: structural and functional insights from Mediterranean climate rivers
17	Morales, Trujillo, Rodrigues, Novais, Morais	University of Évora	Portugal	A highly polluted intermittent, urban river in the Interandean; Dry Valleys of Bolivia: water quality monitoring using diatoms (Bacillariophyta)
18	Pierluigi Viaroli	Parma University	Italy	Spatial and temporal patterns of nutrients loads and stoichiometry in intermittent vs perennial rivers in the Po river watershed (Italy)
19	Rosa Gómez	University of Murcia	Spain	Dry riverbeds as hotspots of heterotrophic activity and terrestrial arthropods biodiversity in an ephemeral river in Namibia
20	Rosemberg Menezes	Federal University of Paraíba	Brazil	Impacts of rainfall reduction on aquatic biodiversity of Brazilian semi-arid reservoirs
21	Rubén del Campo	University of Murcia	Spain	Preconditioning of leaves accumulated in dry riverbeds alters ecosystem functioning of intermittent rivers during the initial wet-phase
22	Sam Capot	Griffith University	Australia	Environmental watering of temporary wetlands: the Australian experience
23	Sandro Lanfranco	University of Malta	Malta	Determinants of species diversity in small freshwater pools
24	Songyan Yu	Griffith University	Australia	Quantifying surface water availability by integrating daily stream flow simulations and river channel morphology
25	Thibault Datry	IRSTEA	France	A global analysis of terrestrial plant litter dynamics in non-perennial waterways. by the 1000IRP
26	Toni Munné	Catalan Water Agency	Spain	The TREH software
27	Vanessa Becker	Federal University of Rio Grande Norte	Brazil	Responses of phytoplankton dynamic during extreme drought in semi-arid man-made lakes