Cofinanciado por la Unión Europea

NAME OF THE APPLICANT: Maria Cuenca Cambronero (Personal website)
OPEN RESEARCH AND CONTRIBUTOR ID (ORCID): 0000-0002-5342-2165
KEYWORDS: Aquatic ecosystems, Global-Change ecology, ecosystem functioning, functional diversity, terrestrial-aquatic interactions

Bibliography associated with the Ramon y Cajal project by Maria Cuenca-Cambronero

1. Li, Y. *et al.* Plant diversity enhances ecosystem multifunctionality via multitrophic diversity. *Nat. Ecol. Evol.* 8, 2037–2047 (2024).
2. Schuldt, A. *et al.* Biodiversity across trophic levels drives multifunctionality in highly diverse forests. *Nat. Commun.* 9, 2989 (2018).
3. Cardinale, B. J. *et al.* Biodiversity loss and its impact on humanity. 486, 59–67 (2012).
4. Parmesan, C. *et al.* Terrestrial and freshwater ecosystems and their services. *Climate Change 2022: Impacts, Adaptation and Vulnerability: Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* 197–378 (Cambridge University Press, 2023).
5. Scherer-Lorenzen, M. *et al.* Pathways for cross-boundary effects of biodiversity on ecosystem functioning. *Trends in Ecology & Evolution*. 2021.12.009 (2022).
6. Shi, H. *et al.* Terrestrial biodiversity threatened by increasing global aridity velocity under high-level warming. *Proc. Natl. Acad. Sci. U. S. A.* 118, e2015552118 (2021).
7. Williamson, C. E., Dodds, W., Kratz, T. K. & Palmer, M. A. Lakes and streams as sentinels of environmental change in terrestrial and atmospheric processes. *Front. Ecol. Environ.* 6, 247–254 (2008).
8. Grace, M. *et al.* Priority knowledge needs for implementing nature-based solutions in the Mediterranean islands. *Environ. Sci. Policy* 116, 56–68 (2021).
9. Valencia, E. *et al.* Functional diversity enhances the resistance of ecosystem multifunctionality to aridity in Mediterranean drylands. *New Phytol.* 206, 660–671 (2015).
10. Saatkamp, A., Argagnon, O., Noble, V., Finocchiaro, M. & Meineri, E. Climate change impacts on Mediterranean vegetation are amplified at low altitudes. *Glob. Ecol. Biogeogr.* 32, 1113–1126 (2023).
11. Parra, G. *et al.* The future of temporary wetlands in drylands under global change. *Inland Waters* 1–12 (2021).
12. Gozlan, R. E., Karimov, B. K., Zadereev, E., Kuznetsova, D. & Brucet, S. Status, trends, and future dynamics of freshwater ecosystems in Europe and Central Asia. *Inland Waters* 9, 78–94 (2019).
13. Holgerson, M. A., Post, D. M. & Skelly, D. K. Reconciling the role of terrestrial leaves in pond food webs: a whole-ecosystem experiment. *Ecology* 97, 1771–1782 (2016).
14. Briée, C., Moreira, D. & López-García, P. Archaeal and bacterial community composition of sediment and plankton from a suboxic freshwater pond. *Res. Microbiol.* 158, 213–227 (2007).
15. Nunes, A. *et al.* Which plant traits respond to aridity? A critical step to assess functional diversity in Mediterranean drylands. *Agric. For. Meteorol.* 239, 176–184 (2017).
16. de Bello, F. *et al.* Towards an assessment of multiple ecosystem processes and services via functional traits. *Biodivers. Conserv.* 19, 2873–2893 (2010).
17. Migliorini, G. H. & Romero, G. Q. Warming and leaf litter functional diversity, not litter quality, drive decomposition in a freshwater ecosystem. *Sci. Rep.* 10, 20333 (2020).
18. Downing, J. A. *et al.* The global abundance and size distribution of lakes, ponds, and impoundments. *Limnol. Oceanogr.* 51, 2388–2397 (2006).
19. Dudgeon, D. *et al.* Freshwater biodiversity: importance, threats, status and conservation challenges. *Biol. Rev. Camb. Philos. Soc.* 81, 163–182 (2006).
20. Davies, B. *et al.* Comparative biodiversity of aquatic habitats in the European agricultural landscape. *Agric. Ecosyst. Environ.* 125, 1–8 (2008).
21. Larsen, S., Muehlbauer, J. D. & Marti, E. Resource subsidies between stream and terrestrial ecosystems under global change. *Glob. Chang. Biol.* 22, 2489–2504 (2016).
22. Gutknecht, J. L. M., Goodman, R. M. & Balser, T. C. Linking soil process and microbial ecology in freshwater wetland ecosystems. *Plant Soil* 289, 17–34 (2006).
23. Díaz, S. *et al.* Incorporating plant functional diversity effects in ecosystem service assessments. *Proc. Natl. Acad. Sci. U. S. A.* 104, 20684–20689 (2007).
24. Lepš, J. & de Bello, F. Differences in trait–environment relationships: Implications for community weighted means tests. *J. Ecol.* 111, 2328–2341 (2023).
25. Holgerson, M. A. & Raymond, P. A. Large contribution to inland water CO2 and CH4 emissions from very

small ponds. *Nat. Geosci.* 9, 222–226 (2016).
26. Gross, N. *et al.* Functional trait diversity maximises ecosystem multifunctionality. *Nat. Ecol. Evol.* 1, 0132–0132 (2017).
27. de Bello, F. *et al.* Functional trait effects on ecosystem stability: assembling the jigsaw puzzle. *Trends Ecol. Evol.* 36, 822–836 (2021).
28. Sala, J., Gascón, S., Boix, D. & Gesti, J. Proposal of a rapid methodology to assess the conservation status of Mediterranean wetlands and its application in Catalunya. *Arch. Sci.* 57, 141–152l (2004).
29. Mekonnen, M., Keesstra, S. D., Stroosnijder, L., Baartman, J. E. M. & Maroulis, J. Soil conservation through sediment trapping: A review: Individual, combined and integrated sediment trapping. *Land Degrad. Dev.* 26, 544–556 (2015).
30. Davidson, T. A. *et al.* Temporary stratification promotes large greenhouse gas emissions in a shallow eutrophic lake. *Biogeosciences* 21, 93–107 (2024).
31. Keuskamp, J. A., Dingemans, B. J. J., Lehtinen, T., Sarneel, J. M. & Hefting, M. M. Tea Bag Index: a novel approach to collect uniform decomposition data across ecosystems. *Methods Ecol. Evol.* 4, 1070–1075 (2013).
32. Moi, D. A. *et al.* Multitrophic richness enhances ecosystem multifunctionality of tropical shallow lakes. *Functional Ecology* 35, 942–954 (2021).
33. Byrnes, J. E. K. *et al.* Investigating the relationship between biodiversity and ecosystem multifunctionality: challenges and solutions. *Methods in Ecology and Evolution* 5, (2014).
34. Ma, L. *et al.* Environmental factors and microbial diversity and abundance jointly regulate soil nitrogen and carbon biogeochemical processes in Tibetan wetlands. *Environ. Sci. Technol.* 54, 3267–3277 (2020).
35. Sancho, V. & Lavomba, J. I. Conservacion y restauracion de puntos de agua para la biodiversidad. *Generalitat Valenciana. Conseleria de Medi Ambient, Aigua, Urbanisme iHabitatge. 168 p (Manuales Técnicos 2.)* (2010).
36. Navarro, E. *et al.* Ecological classification of a set of Mediterranean reservoirs applying the EU Water Framework Directive: A reasonable compromise between science and management. *Lake Reserv. Manag.* 25, 364–376 (2009).