

## SUPPLEMENTARY MATERIAL

### Drying shapes aquatic fungal community assembly by reducing functional diversity

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**Table S1. Geographical and basin characterization of the studied sites.** The percentage of land-use cover refers to a buffer area of 1 km around each sampling point.

Site	Fungal richness	Drying	Altitude (m.a.s.l)	Order	Basin	Prec.	Catch.	Land Use Cover (%)		
								Urban	Agric.	Nat.
1	28	0	489	3	Tordera	911	12.4	0	0.2	99.8
2	29	0	655	4	Tordera	875	49.1	0	0	100
3	12	102	170	3	Tordera	908	12.4	0.7	3.3	95.9
4	26	99	430	3	Besós	788	6.5	2.2	0.8	97.0
5	15	70	100	3	Muga	842	13.5	0	99.5	0.5
6	25	0	385	3	Ter	1038	9.1	0	0.9	99.1
7	18	0	630	4	Ter	953	30.9	1.4	0.03	98.5
8	16	257	526	3	Ter	963	13.3	0	0.6	99.4
9	13	30	140	3	Ter	816	7.7	0	78.5	21.5
10	28	0	605	4	Frankolí	470	28.9	0	14.1	85.9
11	20	36	330	4	Foix	590	26.8	0	100	0
12	18	245	475	4	Fluviá	475	965.4	0	2.3	97.7
13	20	28	219	4	Fluviá	998	13.7	0	34.4	65.6
14	16	159	484	4	Fluviá	1026	15.7	0	1.1	49.3

15	13	340	325	3	Llobregat	732	10.9	2.1	0.9	96.9
Prec. = annual precipitation (mm); Catch. = catchment area (Km <sup>2</sup> ); Agric. = extensive agriculture; Nat. = nature that include: forest (broad-leaved forest. mixed forest and coniferous forest), scrubland and grasslands.										

**Table S2.** Pearson correlation coefficients between functional space PCoA axes and original trait categories. Correlation coefficients  $r \geq |0.50|$  are in bold.

	A1	A2	A3	A4	A5	A6	A7
Litter saprotrophic	<b>0.54</b>	<b>-0.75</b>	-0.2	-0.04	0.05	0.12	0.1
Wood saprotrophic	-0.27	0.18	0.47	0.12	0.07	<b>0.58</b>	-0.19
Plant pathogen	<b>-0.6</b>	<b>0.5</b>	-0.13	-0.08	-0.23	-0.46	0.04
Mycoparasite	0.06	0.09	0.05	-0.19	-0.01	-0.04	-0.09
Litter	0.35	-0.49	-0.39	-0.11	-0.1	-0.3	0.13
Root	-0.37	0.1	0.3	-0.03	0.14	0.37	-0.2
Wood	0.14	0.21	0.6	0.2	-0.04	0.18	0.2
Non aquatic	-0.11	-0.19	0.13	<b>0.82</b>	0.38	-0.23	0.06
aquatic	-0.09	-0.03	-0.12	-0.4	0.14	0.25	0.46
Treeholes	0.22	-0.19	0.48	0.31	<b>-0.71</b>	-0.07	0.11
Endophyte capacity	<b>-0.88</b>	-0.43	0.06	-0.06	0.06	0.03	-0.06
No endophyte capacity	0.09	0.13	-0.22	0.14	-0.05	-0.03	-0.22
Branched	0.42	-0.25	<b>0.67</b>	-0.33	0.23	-0.11	-0.18
Tetrradiate	-0.02	-0.3	0	0.13	-0.03	0.13	<b>0.79</b>
Filiform	-0.28	0.41	0.17	0.04	0.18	0.23	0.08
Sigmoid	-0.38	0.44	-0.08	0.1	0.03	-0.41	0.15
Compact	-0.24	0.1	0.05	-0.14	-0.09	0.1	-0.07
Ascospores	-0.39	0.07	-0.11	-0.3	-0.29	-0.15	-0.04
Clove-shaped	-0.21	-0.11	-0.03	-0.2	-0.1	0.29	-0.06