



Supplement of

Hydrological response to warm and dry weather: do glaciers compensate?

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Supplementary information

S1 Hydrological regimes of the different catchments

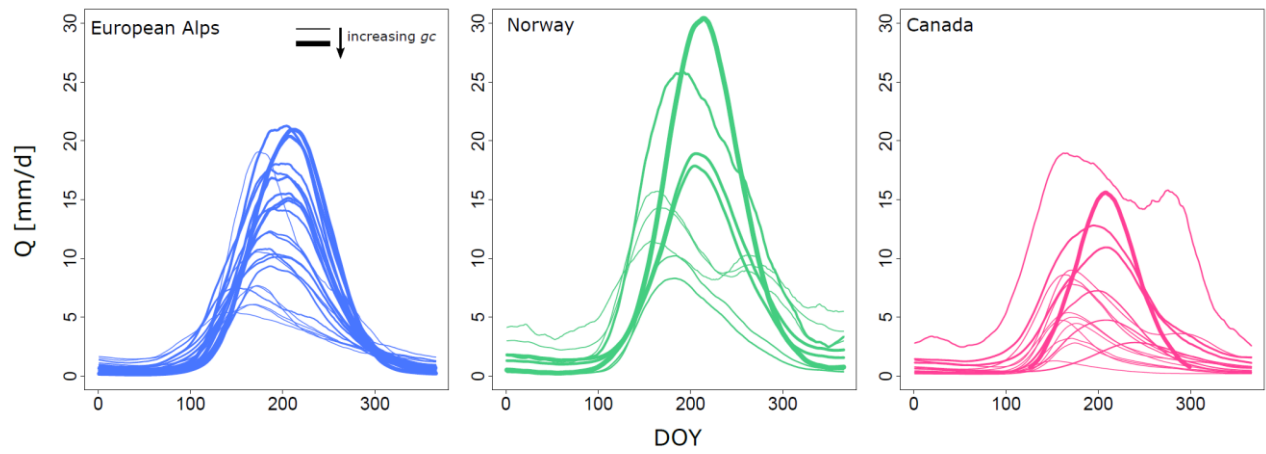


Figure S1 Long term DOY averages of streamflow, smoothed with a 30-day moving window.

Figure S2 Example of the event selection

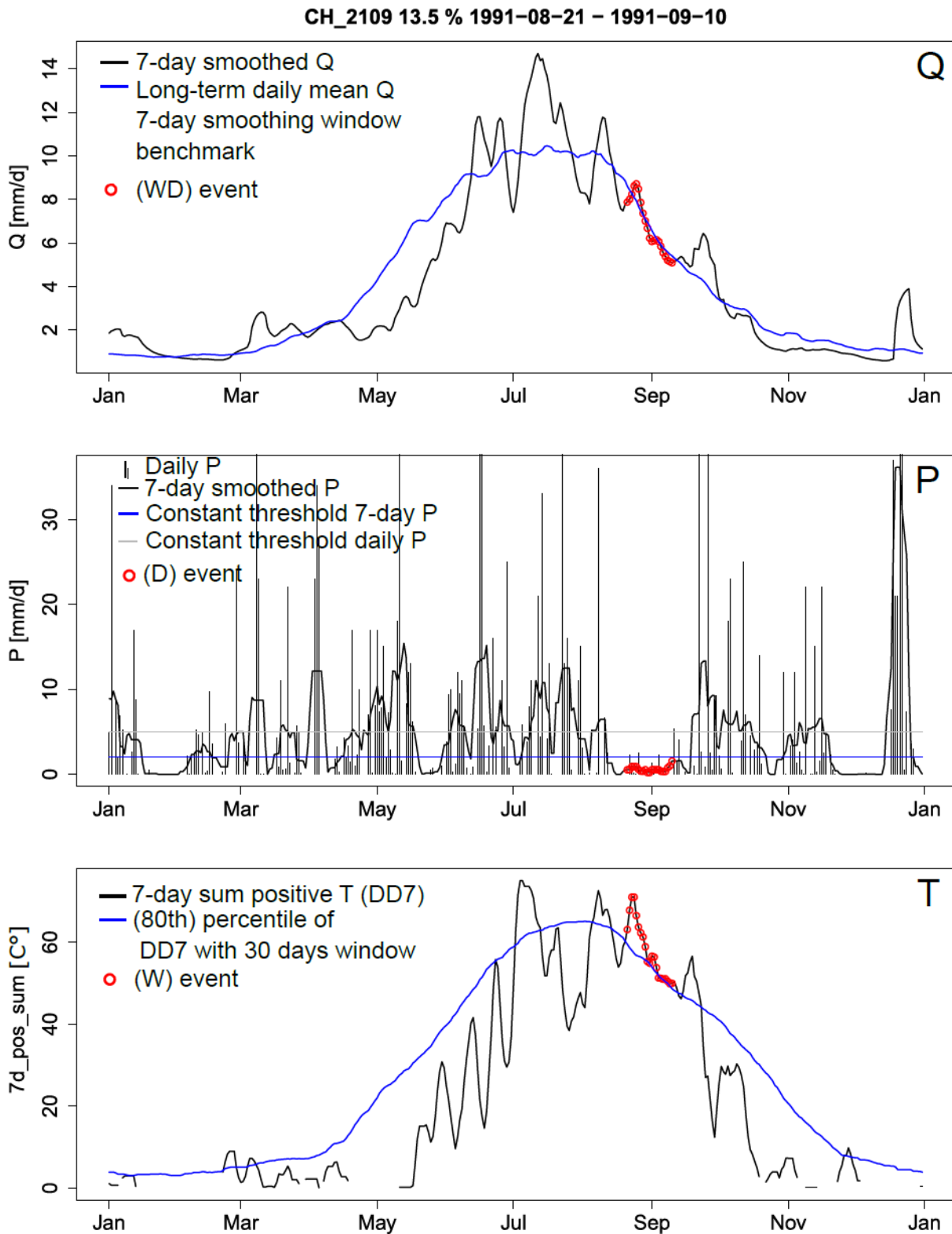


Figure S2 Example of the WD event selection for a Swiss catchment for the year 1991.

Table S1 Catchment information of the catchments in the European Alps, western Canada and southwestern Norway. The precipitation regime number refers to the column numbers of the plots in Figure 2.

	Catchment	Station name	P regime [Fig. 2]	Lat Q station	Lon Q station	Glacier cover [%]	Size [km²]	Mean elevation [m a.s.l.]	Observation period Q	Nested
European Alps	AT-1	Hinterbichl	1	47.0158	12.3378	11.3	107.01	2538	1961-2015	HinterbichlUW
	AT-2	HinterbichlUW	1	47.0197	12.3394	23.2	35	2660	1961-2015	Hinterbichl
	AT-3	Hopfgarten	1	46.9181	12.5133	0.7	268.6	2234	1961-2015	x
	AT-4	Innergsschloss	1	47.1244	12.4519	27.6	39.95	2591	1961-2015	Matreier Tauernhaus
	AT-5	Matreiertauernhaus	1	47.1186	12.4956	18.3	60.28	2463	1961-2015	Innergsschloss
	AT-6	Ochsenhutte	1	47.0153	13.3822	26	8.73	2263	1961-2015	x
	AT-7	Puig	1	47.1136	11.4528	0.5	341.8	1910	1961-2015	St.Jodok
	AT-8	Spottling	1	47.0261	12.6322	10.3	47.01	2452	1961-2015	x
	AT-9	Spottlingtaurer	1	47.0261	12.6347	12	14.03	2595	1961-2015	x
	AT-10	StJodok	1	47.0631	11.5000	1	108.8	2019	1961-2015	Puig
	AT-11	Sulzau	1	47.2319	12.2469	15.8	80.77	2298	1961-2015	x
	CH-1	2109	1	46.6642	7.8715	13.5	380.7	2040	1961-2016	2200
	CH-2	2151	1	46.6550	7.4394	2.4	343.7	1635	1961-2016	2219
	CH-3	2161	1	46.3856	8.0067	56.5	195.5	2937	1961-2016	x
	CH-4	2200	1	46.6313	7.8997	13.1	164.9	2150	1961-2016	2109
	CH-5	2219	1	46.4263	7.4729	22.5	34.8	2341	1961-2016	2151
	CH-6	2269	1	46.4864	9.9062	24.7	106.9	2614	1961-2016	x
	CH-7	2276	1	46.5693	9.9360	6.7	73.4	2547	1961-2016	x
	CH-8	2430	1	46.5623	8.3621	1.7	39.4	2709	1961-2016	x
	CH-9	2481	1	46.4189	7.8175	2.5	77.4	2620	1961-2016	x
	CH-10	2262	2	46.9101	8.5610	14.3	43.9	1814	1961-2016	x
	CH-11	2263	2	46.8113	8.5990	0.1	20.7	2193	1961-2016	x
	CH-12	2268	3	46.6499	8.9907	41.8	21.8	2447	1961-2016	x
CH-13	2299	3	46.9728	8.4053	19.6	228	1604	1961-2016	x	

Western Canada	CA-1	05BB001	1	51.1722	-115.5718	2	2209.59	2138	1945-2012	x
	CA-2	05DA007	1	51.8843	-116.6892	9	248.04	2253	1950-2012	x
	CA-3	08KA007	1	52.2163	-117.2321	2.7	29.31	2617	1948-2012	x
	CA-4	08NK016	1	54.1168	-127.4266	0.5	1896.18	1254	1961-2012	x
	CA-5	07AA007	1	54.3622	-129.3128	55.5	369.75	883	1962-2012	x
	CA-6	08ED002	2	50.9864	-124.9186	4.7	5676.34	1646	1957-2012	x
	CA-7	08EG012	2	54.0851	-124.6009	8.7	6552.1	950	1950-2012	x
	CA-8	08GD004	2	52.9863	-119.0067	19.2	1708.36	1913	1955-2012	x
	CA-9	08LB047	2	51.6019	-119.9144	4.1	4486.38	1528	1960-2012	x
	CA-10	08LD001	2	50.9376	-119.6563	1.1	3205.75	1261	1945-2012	x
	CA-11	08MA002	2	51.6249	-124.1434	7.1	2131.2	1748	1945-2012	x
	CA-12	08MG005	2	50.3360	-122.8002	17.5	2098.62	1551	1945-2012	x
	CA-13	08JB003	3	49.8656	-114.8687	0.02	1844.23	1965	1950-2012	x
	CA-14	09AA006	3	59.5954	-133.8144	8.6	6860.94	1151	1950-2012	x
	CA-15	09AA012	3	60.1278	-134.8836	0.8	864.45	1430	1955-2012	x
	CA-16	09AA013	3	59.9478	-134.3325	1.3	989.4	1229	1956-2012	x
	CA-17	10CB001	4	57.2382	-122.6915	0.1	2186.46	1437	1945-2012	x
Southwestern Norway	NO-1	Fetvatn	1	61.7997	8.4472	3.3	789.27	1459	1957-2015	x
	NO-2	Gronengstolsvatn	1	62.3325	6.5929	25.4	89.05	608	1957-2015	Viksvatn
	NO-3	Lovatn	1	61.4432	6.4690	32.7	65.65	1151	1965-2015	x
	NO-4	N_oldevatn	1	61.8587	6.8897	35.3	234.88	1170	1957-2015	x
	NO-5	Nigardsbrevatn	1	61.7980	6.8284	71.7	201.67	1124	1957-2015	x
	NO-6	Sogndalsvatn	1	61.5603	8.9271	3.8	480.7	1472	1957-2015	x
	NO-7	Viksvatn	1	61.6666	7.2419	3.6	65.29	1423	1963-2015	Gronengstolsvatn
	NO-8	Akslen	2	61.2978	7.0068	10.9	110.93	974	1962-2015	x
	NO-9	N_sjodalsvatn	2	61.3331	5.8863	7.8	508.13	814	1957-2015	x