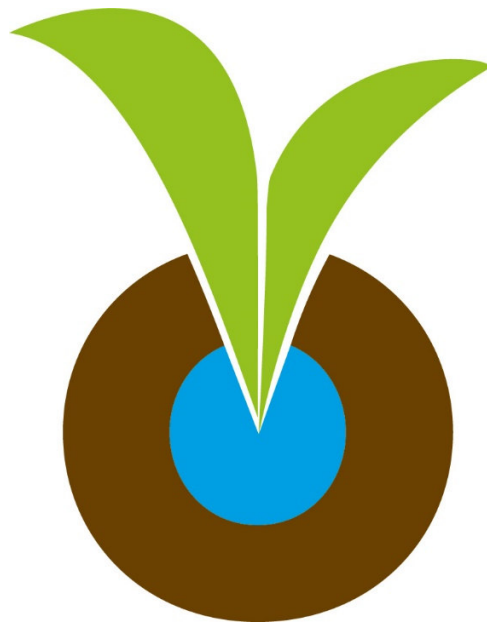


**Compilation of study sites
with tracer-based estimate of
travel times**



Document prepared for COST Action CA19120: WATer isotopeS in the critical zONe from groundwater recharge to plant transpiration (WATSON)

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List of sites with transit time estimates

The list presented in Table 1 presents a compilation of study sites where tracers were used to estimate travel times. The list is an updated version of the compilation prepared by Benettin et al. (2022) and found on [GitHub - pbenettin/TTDstudies: A list of scientific studies on water transit time distributions](#).

Table 1: Study sites

Site	System	Size km ²	Country	Latitude	Longitude	Climate	Studies
Aabach–Mönchsaltorf	Catchment	46	CH	47.31	8.72	Dfb	Bertuzzo et al. (2013)
Allt Coire nan Con	Catchment	8	UK	56.758	-5.613	Cfb	Hrachowitz et al. (2013)
Allt a'Mharcaidh	Catchment	9.6	UK	57.116	-3.848	Cfb	Hrachowitz et al. (2013)
Alteckendorf	Catchment	0.47	FR	48.788	7.59	Cfb	Lutz et al. (2017)
Attert	Soil profile	NA	LU	49.771	5.97	Cfb	Sprenger et al. (2016)
Baldardo Burn	Catchment	2	UK	56.6586	-2.8227	Cfb	Dunn et al. (2010)
Bogus Creek	Catchment	0.6	US	43.7	-116.167	BSk	Ala-aho et al. (2017)
Bruntland Burn	Catchment	3.2	UK	57.04334	-3.12268	Cfc	Neill et al. (2021) Lee Stevenson et al. (2021) Kuppel et al. (2020) Kuppel et al. (2018) Ala-aho et al. (2017) Benettin et al. (2017) van Huijgevoort et al. (2016) Soulsby et al. (2015b)
Bruntland Burn	Soil profile	NA	UK	57.04334	-3.12268	Cfc	Smith et al. (2020a) Sprenger et al. (2018)
Burn of Bennie	Catchment	7.9	UK	57.059	-2.467	Cfb	Soulsby et al. (2015a)
Can Vila	Catchment	0.56	ES	42.1927	1.82035	Cfb	Sprenger et al. (2022)
Caño Seco	Catchment	30	CR	8.737	-82.946	Af	Birkel and Soulsby (2016)
Chenqi	Catchment	1.25	CN	26.264	105.772	Cwa	Zhang et al. (2021) Zhang et al. (2020) Zhang et al. (2019)
Corin	Catchment	147	AU	-35.66	148.84	Cfb	Buzacott et al. (2020)
Demnitzer Millcreek	Catchment	66	DE	52.3542	14.19262	Dfb	Smith et al. (2021)
Demnitzer Millcreek	Soil profile	NA	DE	52.3542	14.19262	Dfb	Smith et al. (2020b)
Douglas County Experimental Fields, Tiles A-B-C	Catchment	0.018	US	39.71667	-88.233333	Dfa	Yu et al. (2023)
Dry Creek	Catchment	3.5	US	39.5754	-123.4642	Csb	Lapides et al. (2022)
Duck River	Catchment	369	AU	-40.867	145.1179	Cfb	Riazi et al. (2022)
EPFL campus	Soil column	0.000001	CH	46.52139	6.567382	Cfb	Asadollahi et al. (2022) Asadollahi et al. (2020)

Site	System	Size km ²	Country	Latitude	Longitude	Climate	Studies
							Rodriguez et al. (2020) Queloz et al. (2015)
Eichstetten	Soil profile	NA	DE	48.08	7.7	Cfb	Sprenger et al. (2015)
Girnock Burn	Catchment	30	UK	57.047	-3.115	Cfc	Birkel et al. (2015)
Granger Basin	Catchment	7.8	CA	60.533	-135.183	ET	Piovano et al. (2019)
Gårdsjön G1	Catchment	0.0063	SE	58.053	12.016	Dfb	van der Velde et al. (2015) Davies et al. (2013)
HJ Andrews WS 10	Catchment	0.96	US	44.2169	-122.261	Csb	Cain et al. (2019) Rodriguez et al. (2018) Klaus et al. (2015)
HJ Andrews WS 10	Hillslope	0.0017	US	44.2169	-122.261	Csb	McGuire et al. (2007)
Hartheim	Soil profile	NA	DE	47.93	7.6	Cfb	Sprenger et al. (2015)
Hemuqiao	Catchment	1.35	CN	30.45114	119.462564	Cfa	Gou et al. (2023) Gou et al. (2023b)
Howard River	Catchment	126	AU	-12.4625	131.0836	Aw	Birkel et al. (2020)
Hubbard Brook	Catchment	0.42	US	43.95858	-71.7208	Dfb	Benettin et al. (2015b)
Hupsel Brook	Catchment	6.5	NL	52.064	6.629	Cfb	Benettin et al. (2013) van der Velde et al. (2010)
Kaiserstuhl	Soil profile	NA	DE	48.052	7.639	Cfb	Sprenger et al. (2016)
Kerbernez	Catchment	0.12	FR	47.9433	-4.12338	Cfb	Hrachowitz et al. (2015)
Kerrien	Catchment	0.11	FR	47.9439	-4.12081	Cfb	Hrachowitz et al. (2015)
Kervidy-Naizin	Catchment	5	FR	48.0062	-2.83143	Cfb	Benettin et al. (2020)
Krycklan	Catchment	0.5	SE	64.23	19.76	Dfc	Jutebring Sterte (2021) Ala-aho et al. (2017)
LEO hillslopes (East, West), Landscape Evolution Observatory, Biosphere 2	Hillslope	0.00033	US	32.57884	-110.85115	NA	Kim et al. (2022)
Lake Stechlin	Soil profile	NA	DE	53.13333	13.03333	Dfb	Douinot et al. (2019)
Loch Ard Burn 10	Catchment	0.9	UK	56.15641	-4.468901	Cfb	McMillan et al. (2012)
Loch Ard Burn 11	Catchment	1.4	UK	56.15655	-4.464869	Cfb	Hrachowitz et al. (2013)
Lägeren	Soil profile	NA	CH	47.47833	8.36439	Dfb	Brinkmann et al. (2018)
Lainbach	Catchment	18.7	DE	47.42	11.25	Dfc	Matoszewski et al. (1983)
lange Bramke	Catchment	0.76	DE	51.8667	10.4333	Dfc	Herrmann and Schumann (2009)

Site	System	Size km ²	Country	Latitude	Longitude	Climate	Studies
Luxembourg Sandstone	Groundwatershed		LU	49.45	6.6	Cfb	Gourdol et al. (2024)
Marshall Gulch	Catchment	1.53	US	32.4	-110.767	BSk	van der Velde et al. (2015)
Neckar	Catchment	13041	DE	49.44788	9.005956	Dfb	Wang et al. (2023)
Neuherberg	Soil column	0.000001	DE	48.222	11.595	Dfb	Stumpp et al. (2009) Stumpp et al. (2010) Asadollahi et al. (2020)
Plastic-1	Catchment	0.23	CA	45.183	-78.833	Dfb	Piovano et al. (2018)
Plynlimon, Hafren	Catchment	3.5	UK	52.475	-3.705	Cfb	Grandi and Bertuzzo (2022) Knapp et al. (2019) Remondi et al. (2018) Wilusz et al. (2017) Harman (2015)
Plynlimon, Tanllwyth	Catchment	0.9	UK	52.474	-3.709	Cfb	Knapp et al. (2019) Wilusz et al. (2017)
Plynlimon, Upper Hafren	Catchment	1.2	UK	52.4905	-3.7304	Cfb	Grandi and Bertuzzo (2022) Knapp et al. (2019) Benettin et al. (2015a)
Quebrada Grande	Catchment	3.9	CR	10.0941	-84.0617	Cfb	Mayer-Anhalt et al. (2022)
San Lorencito river	Catchment	3.2	CR	10.22	-84.587	Am	Correa et al. (2020)
Schneetalpe karst	Catchment	23	AT	47.70574	15.592736	Dfc	Małoszewski et al. (2002)
Schäfertal	Catchment	1.44	DE	51.6545	11.04975	Dfb	Yang et al. (2021)
Selke, Hausneindorf	Catchment	457	DE	51.84	11.262	Dfb	Nguyen et al. (2022)
Selke, Meisdorf	Catchment	179	DE	51.7	11.285	Dfb	Borriero et al. (2023) Nguyen et al. (2022)
Selke, Silberhütte	Catchment	100	DE	51.624	11.078	Dfb	Nguyen et al. (2022) Nguyen et al. (2021)
Southern Sierra Critical Zone Observatory, P301	Catchment	1	US	37.055	-119.205	Csb	Visser et al. (2019)
Springendalse Beek	Catchment	4	NL	52.43361	6.91418	Cfb	Kaandorp et al. (2021)
Steglitz Urban Ecohydrological Observatory	Catchment	0.0078	DE	52.45723	13.315827	Dfb	Gillefalk et al. (2021)
Steinsel plateau	Groundwatershed	7	LU	49.41	6.7	Cfb	Farlin et al. (2013) Farlin et al. (2017) Farlin et al. (2022)
Strengbach	Catchment	0.8	FR	48.38	7.33	Cfb	Viville et al. (2006)
Svartberget	Catchment	0.49	SW	64.23333	19.76667	Dfc	Smith et al. (2019)

Site	System	Size km ²	Country	Latitude	Longitude	Climate	Studies
Wagna	Soil column	0.000001	AT	46.7	15.5	Dfb	Stumpp et al. (2009)
Weierbach	Catchment	0.42	LU	49.828	5.796	Cfb	Rodriguez et al. (2021) Rodriguez and Klaus (2019)
Wimbachtal	Catchment	33.4	DE	47.36	12.55	Dfc	Małozzewski et al. (1992)
Wuestebach	Catchment	0.39	DE	50.504	6.334	Dfb	Hrachowitz et al. (2021)
miniLEO, Landscape Evolution Observatory, Biosphere 2	Mini Hillslope	0.000001	US	32.57884	-110.85115	NA	Meira Neto et al. (2022) Pangle et al. (2017) Kim et al. (2016)

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