

Table S1. The region, latitude and longitude (°) of rivers where whitebait samples (>100 fish) were collected. The number and date of samples is shown.

Region	River	Latitude	Longitude	Samples	Sampling date
Auckland	Hoteo	-36.430	174.429	3	15/10, 2/11, 19/11
Coromandel	Wentworth	-37.196	175.865	4	7/10, 2/11, 7/11, 15/11
Waikato	Waikato	-37.361	174.695	13	15/8, 16/8, 12/9, 14/9, 25/9, 2/10, 9/10, 24/10, 29/10, 4/11, 9/11, 23/11, 23/11
	Waingaro	-37.742	174.955	4	2/10, 30/10, 13/11, 27/11
	Oparau	-38.066	174.891	2	1/10, 15/10
	Marokopa	-38.308	174.714	3	23/9, 7/10, 2/11
	Waikawau	-38.479	174.636	4	24/9, 4/10, 26/10, 8/11
	Awakino	-38.665	174.620	2	17/7, 17/8
	Mokau	-38.705	174.614	13	15/7, 17/7, 1/8, 1/8, 18/8, 1/9, 4/9, 15/9, 17/9, 2/10, 2/10, 18/11, 2/12
Bay of Plenty	Tuapiro	-37.495	175.929	1	8/10
	Whangaparaoa	-37.569	177.992	2	20/8, 1/9
	Kaituna	-37.748	176.415	8	22/7, 3/8, 20/8, 6/9, 23/9, 8/10, 5/11, 18/11
	Tarawera	-37.890	176.788	1	7/09
	Rangitaiki	-37.909	176.882	3	30/8, 5/9, 6/10
	Whakatane	-37.943	177.010	5	23/7, 1/9, 10/9, 15/9, 5/10
	Waiaua	-37.983	177.389	1	15/10
	Waiotahi	-37.991	177.208	1	12/10
	Otara	-38.001	177.280	1	6/10
	Nukuhou	-38.018	177.108	2	22/7, 2/8
Taranaki	Waitara	-38.988	174.229	1	22/09
	Onaero	-38.993	174.364	2	10/9, 24/09
	Waingongoro	-39.586	174.193	1	27/09

Manawatu	Kai Iwi	-39.885	174.898	2	28/09, 30/11
	Whangaehu	-40.041	175.100	1	7/10
	Rangitikei	-40.298	175.223	7	9/9, 16/9, 1/10, 17/10, 2/11, 17/11, 19/11
	Manawatu	-40.482	175.209	1	4/09
	Owahanga	-40.680	176.351	1	17/11
Hawkes Bay	Wairoa	-39.063	177.417	4	5/10, 12/10, 2/11, 10/11
	Tūtaekurī	-39.566	176.914	7	19/8, 27/9, 7/10, 8/10, 22/10, 4/11, 13/11
	Clive	-39.572	176.926	1	9/10
	Tukituki	-39.598	176.945	1	4/09
	Pōrangahau	-40.277	176.674	2	8/10, 27/10
Wellington	Otaki	-40.759	175.103	1	20/10
	Peka Peka	-40.826	175.061	1	18/10
	Waikanae	-40.873	175.003	1	3/10
	Pauatahanui	-41.103	174.910	2	14/10, 24/10
	Hutt	-41.241	174.899	1	30/09
	Lake Ferry	-41.396	175.141	1	30/11
Wairarapa	Whareama	-41.016	176.107	1	31/08
Tasman-Nelson	Aorere	-40.674	172.677	1	13/10
	Wainui	-40.812	172.941	2	2/10, 19/10
	Takaka	-40.818	172.802	10	5/7, 17/7, 1/8, 18/8, 2/9, 15/9, 1/10, 16/10, 2/11, 18/11, 30/11, 17/12
	Motueka	-41.081	173.023	1	31/07
Marlborough	Wairau Diversion	-41.441	174.031	6	3/9, 4/10, 15/10, 5/11, 17/11, 28/11
	Wairau	-41.504	174.050	1	13/10
	Ōpaoa	-41.506	174.051	1	24/10

Buller	Oparara	-41.214	172.102	2	25/10, 11/10
	Karamea	-41.258	172.097	5	15/9, 6/10, 21/10, 5/11, 14/11
	Little Wanganui	-41.391	172.055	2	24/9, 6/10
	Mokihinui	-41.522	171.937	4	26/9, 11/10, 21/10, 17/11
	Buller	-41.730	171.589	7	18/8, 7/9, 18/9, 4/10, 31/10, 2/11, 18/11
	Orowaiti	-41.739	171.670	3	15/9, 9/10, 9/11
	Okari	-41.810	171.460	1	19/09
	Punakaiki	-42.124	171.329	2	18/11, 15/12
Canterbury	Lyell	-42.404	173.685	1	18/11
	Kowhai	-42.419	173.633	1	21/11
	Saltwater	-43.269	172.724	6	28/8, 16/9, 28/10, 12/11, 23/11, 23/12
	Ashley	-43.274	172.724	6	21/9, 29/9, 30/9, 10/10, 31/10, 26/11
	Waimakariri	-43.391	172.702	8	12/9, 24/9, 11/10, 25/10, 5/11, 21/11, 6/12, 20/12
	Styx	-43.397	172.704	1	27/08
	Avon	-43.527	172.726	8	4/8, 23/8, 5/9, 27/9, 9/11, 9/11, 23/11, 21/12
	Heathcote	-43.558	172.709	1	24/11
	Okains	-43.691	173.060	1	24/10
	Pawsons	-43.751	172.931	1	21/10
	Robinsons Bay	-43.764	172.962	1	25/10
	Orari	-44.243	171.408	1	10/11
	Opihi	-44.282	171.349	1	2/11
	Waihao	-44.772	171.171	1	29/11

Westland	Taramakau	-42.562	171.127	1	14/09
	Waimea	-42.631	171.071	1	28/11
	Hokitika	-42.724	170.950	7	6/7, 23/7, 14/9, 12/10, 30/10, 14/11, 14/11
	Wanganui	-43.036	170.426	6	16/9, 28/9, 11/10, 28/10, 8/11, 19/11
	Okarito	-43.219	170.166	2	16/9, 30/10
	Paringa	-43.632	169.434	5	16/9, 1/10, 13/10, 4/11, 10/11
	Waiatoto	-43.976	168.788	14	21/8, 7/9, 8/9, 19/9, 1/10, 7/10, 16/10, 30/10, 7/11, 12/11, 12/11, 13/11, 21/11, 18/12
	Cascade	-44.030	168.363	6	8/9, 21/9, 8/10, 21/10, 5/11, 13/11
Otago	Waitaki	-44.937	171.147	3	28/10, 2/11, 22/11
	Kakanui	-45.188	170.899	2	28/10, 30/11
	Shag	-45.480	170.819	1	28/10
	Taeri	-46.054	170.202	4	29/10, 3/11, 17/11, 20/11
	Owaka	-46.472	169.700	1	30/10
Southland	Waiau	-46.195	167.615	10	2/8, 13/8, 2/9, 17/9, 1/10, 9/10, 21/10, 1/11, 15/11, 26/11
	Aparima	-46.342	168.010	7	7/8, 18/8, 3/9, 17/9, 1/10, 15/10, 2/11
	Oreti	-46.462	168.301	7	1/8, 10/8, 23/8, 1/9, 12/9, 28/9, 21/10
	Titiroa	-46.564	168.784	5	16/8, 17/8, 1/9, 12/9, 12/9
	Mataura	-46.572	168.778	8	1/8, 16/8, 1/9, 18/9, 23/10, 28/10, 1/11, 30/11
	Waikawa	-46.608	169.129	2	2/11, 11/11