

Table S2. Coefficient of determination calculated for each combination of data according to the five regression methods used.

Burlan Lake												Pomacochas Lake												
Simple Linear Regression																								
CART				RF				SVM				CART				RF				SVM				
A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	
AVH	42.01	-0.014	3.42	0.0507	41.97	0.017	3.411	-0.156	41.79	-0.012	3.43	0.15	427.741	-0.161	14.86	-0.028	428.58	-0.07	14.906	0.018	421.89	-0.048	13.64	-0.24
AVV	43.13	0.0299	3.58	0.0286	43.12	0.0408	3.54	-0.071	42.48	-0.058	3.51	-0.095	437.895	-0.034	17.04	0.0438	436.68	-0.018	17.669	-0.056	433.42	-0.009	17.48	0.084
DVH	42.58	-0.002	3.47	0.13	42.86	0.0445	3.471	-0.085	42.46	0.12	3.48	0.114	418.932	-0.049	11.31	0.0055	419.42	-0.016	11.381	0.0158	417.78	-0.004	11.53	-0.134
DVV	43.99	-0.013	3.88	-0.107	43.75	-0.13	3.811	-0.061	44.49	-0.005	3.89	-0.005	432.945	-0.219	13.28	0.0949	431.88	-0.126	13.07	-0.016	438.02	-0.294	14.37	-0.017
Polinomial Regression																								
CART				RF				SVM				CART				RF				SVM				
A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	
AVH	41.61	0.0288	3.39	0.09	41.59	0.048	3.389	-0.076	41.56	-0.064	3.41	0.2	428.4	-0.076	15.28	-0.062	428.82	-0.029	15.484	0.0322	410.53	0.129	12.73	0.117
AVV	42.88	0.055	3.52	0.0855	43.05	0.076	3.53	-0.001	42.66	0.031	3.49	-0.006	435.007	0.069	16.83	0.18	435.13	0.086	16.862	0.0604	427.66	0.2108	16.54	0.242
DVH	42.24	0.0122	3.41	0.1855	42.62	0.046	3.414	0.0844	42.32	0.1506	3.44	0.166	418.724	0.0435	11.33	0.019	419.8	-0.082	11.368	0.019	407.83	0.3766	11.03	0.133
DVV	44.23	0.0285	3.78	-0.061	43.93	-0.043	3.772	0.0021	44.22	0.0186	3.75	-0.008	432.602	-0.054	13.13	-0.036	431.8	-0.059	13.038	-0.007	438.66	-0.111	14.4	0.0015
Support Vector Regression																								
CART				RF				SVM				CART				RF				SVM				
A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	
AVH	41.71	-0.056	3.39	-0.41	41.7	-0.075	3.39	-0.534	41.22	0.067	3.44	0.121	430.35	-0.441	15.2	0.152	428.09	-0.196	15.14	0.42	415	-0.006	13.25	-0.025
AVV	42.96	0.024	3.48	0.056	43.01	-0.071	3.47	-0.252	42.5	-0.176	3.43	0.009	434.84	-0.064	16.86	0.016	436.15	-0.096	16.86	-0.042	424.72	-0.03	16.21	0.046
DVH	42.26	-0.23	3.42	0.106	42.69	-0.178	3.44	0.247	42.43	0.216	3.41	0.29	419.64	-0.092	11.42	-0.404	419.9	-0.276	11.42	-0.189	411.42	0.41	11.15	0.12
DVV	44.59	-0.134	3.69	0.05	44.39	-0.149	3.68	-0.165	44.03	-0.027	3.69	-0.051	432.74	-0.234	13.12	-0.103	432.48	-0.119	13.14	0.002	438.9	-0.191	15.16	-0.208
Decision Trees Regression																								
CART				RF				SVM				CART				RF				SVM				
A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	
AVH	41.6	-0.08	3.4	-0.721	41.6	-0.492	3.4	-0.849	43.94	-0.21	3.5	-0.658	434.62	-1.208	14.81	-0.496	426.01	-1.136	14.81	-0.203	421.1	-1.28	12.26	-1.716
AVV	45.17	0.371	3.66	0.061	45.17	-0.167	4.03	-0.533	44.74	-1.16	3.35	-0.983	435.02	-1.201	17.1	0.158	434.57	-0.711	16.9	-0.193	420.3	-0.44	13.74	-0.861
DVH	44	-0.633	3.44	-0.176	42.65	-0.309	3.46	-0.377	44.01	-1.148	3.5	-0.261	415.74	-0.731	11.4	-0.834	420.12	-2.311	11.4	-0.738	414.45	-0.22	11.19	-0.535
DVV	45.69	-0.274	3.43	0.234	45.69	-0.209	3.43	-0.379	45.97	-0.503	3.39	-0.581	430.07	-0.966	12.97	-0.859	430.07	-0.618	12.97	-0.73	442.56	-0.464	15.27	-1.04
Random Forest Regression																								
CART				RF				SVM				CART				RF				SVM				
A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	A	r2	P	r2	
AVH	41.64	0.242	3.39	-0.359	41.56	-0.033	3.39	-0.518	42.38	-0.048	3.48	-0.405	423.76	-0.782	15.15	-0.409	427.8	-0.565	15.1	0.0099	415.3	-0.622	13.21	-0.954
AVV	44.47	0.46	3.69	0.146	44.7	0.167	3.86	-0.158	43.13	-0.524	3.37	-0.568	435.25	-0.665	17.46	0.261	435.2	-0.403	17.51	-0.131	425.67	0.0407	14.28	-0.561
DVH	42.55	-0.341	3.46	0.164	42.54	-0.139	3.44	-0.135	42.5	-0.519	3.49	0.066	418.43	-0.099	11.25	-0.243	420.3	-1.041	11.44	-0.106	413.14	0.147	11.24	0.0038
DVV	44.74	0.226	3.82	0.43	44.52	-0.073	3.53	-0.253	45.57	-0.59	3.87	-0.268	433.03	-0.651	12.9	-0.665	431.98	-0.654	13.73	-0.468	440.45	-0.293	15.06	-0.455