Confidence-Aware Framework for Mapping Satellite-Derived River Reaches to Gridded Routing Networks

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Table S1. Optimal composite-score weights selected independently for each Pfafstetter zone. Weights are obtained by grid search (step 0.1) to maximize the number of high-confidence assignments. Zero weights indicate metrics that do not provide additional discriminatory power beyond other terms within a given zone, rather than exclusion of those metrics from the framework.

pfaf	w_dist	w_length	w_angle	n_high	n_medium	n_low
11	0.9	0	0.1	507	54	17
12	0.9	0	0.1	785	127	34
14	1	0	0	976	131	30
15	1	0	0	124	18	8
16	1	0	0	141	40	10
17	1	0	0	386	101	23
18	1	0	0	454	46	16
21	0.9	0	0.1	462	112	30
22	0.9	0	0.1	839	149	33
23	1	0	0	969	186	46
24	0.9	0	0.1	247	63	15
25	0.9	0	0.1	120	15	8
26	1	0	0	266	42	9
27	1	0	0	33	1	3
28	0.9	0	0.1	761	152	34
29	0.9	0	0.1	227	19	11
31	1	0	0	1065	255	68
32	1	0	0	556	155	29
33	1	0	0	485	65	15
34	0.9	0	0.1	865	223	42
35	1	0	0	1045	190	49
36	0.9	0.1	0	17	1	1
41	0.9	0	0.1	359	30	10
42	0.9	0	0.1	1115	299	61
43	0.9	0	0.1	4023	578	135
44	0.9	0	0.1	1541	201	48
45	0.9	0	0.1	3914	624	130
46	1	0	0	387	86	28
47	1	0	0	180	35	4
48	0.9	0	0.1	468	38	15

49	1	0	0	26	14	2
51	0.9	0	0.1	453	86	24
52	0.9	0	0.1	799	177	54
53	0.9	0	0.1	972	128	29
55	1	0	0	29	2	1
56	1	0	0	950	139	38
57	0.5	0	0.5	26	13	8
61	1	0	0	1787	238	64
62	0.9	0	0.1	7144	886	227
63	1	0	0	620	63	19
64	1	0	0	1863	247	67
65	0.9	0	0.1	379	33	12
66	1	0	0	202	50	11
67	1	0	0	274	41	18
71	1	0	0	236	90	29
72	1	0	0	517	107	22
73	0.9	0	0.1	464	17	8
74	0.9	0	0.1	944	175	35
75	0.9	0	0.1	620	100	32
76	1	0	0	26	5	3
77	1	0	0	265	85	20
78	1	0	0	162	27	14
81	1	0	0	306	91	25
82	1	0	0	242	63	13
83	1	0	0	161	45	11
84	0	0.9	0.1	39	12	9
85	0	0.1	0.9	34	2	11
86	1	0	0	0	0	0
91	0.5	0	0.5	4	2	0