

Supplementary Table S1. Cyprinid fishes^a collected from the water systems of Hantan-gang and Imjin-gang in Korea

Species of fish	No. of fish collected from 8 localities ^b								Total
	①	②	③	④	⑤	⑥	⑦	⑧	
<i>Pungtungia herzi</i>	137	3	13	25	-	2	-	16	196
<i>Squalidus japonicus coreanus</i>	2	-	-	-	-	-	-	-	2
<i>Squalidus gracilis majimae</i>	-	-	-	-	-	-	1	-	1
<i>Sarcocheilichthys nigripinnis</i>	5	-	-	-	-	-	-	-	5
<i>Sarcocheilichthys variegatus</i>	1	1	-	-	-	27	-	-	29
<i>Pseudorasbora parva</i>	-	-	-	-	1	-	30	56	87
<i>Pseudogobio esocinus</i>	94	1	17	2	6	-	30	38	188
<i>Hemibarbus longirostris</i>	53	4	18	7	-	4	6	9	101
<i>Hemibarbus mylodon</i>	38	-	-	-	-	-	-	-	38
<i>Hemibarbus labeo</i>	9	4	-	2	15	10	-	68	108
<i>Microphysogobio longidorsalis</i>	101	7	-	-	-	-	-	10	118
<i>Microphysogobio jeoi</i>	1	-	-	-	-	-	-	-	1
<i>Coreoleuciscus splendidus</i>	48	-	-	15	-	2	-	2	67
<i>Abbotina springeri</i>	-	-	-	-	-	20	-	-	20
<i>Abbotina rivularis</i>	-	-	-	-	-	-	12	18	30
<i>Ladislabia taczanowskii</i>	1	-	-	-	-	-	-	-	1
<i>Gobiobotia brevibarba</i>	4	-	-	-	-	-	-	-	4
<i>Carassius auratus</i>	18	-	3	-	-	-	20	71	112
<i>Cyprinus carpio</i>	-	-	-	-	9	-	-	-	9
<i>Acheilognathus rhombeus</i>	40	-	15	-	-	-	-	25	80
<i>Acheilognathus signifer</i>	35	-	-	-	-	-	-	-	35
<i>Acheilognathus majusculus</i>	10	-	-	-	-	-	-	-	10
<i>Acheilognathus koreensis</i>	-	-	10	-	-	-	-	-	10
<i>Acheilognathus yamatsutae</i>	-	-	-	10	-	20	-	-	30
<i>Acheilognathus signifer</i>	1	-	-	-	-	-	-	-	1
<i>Acheilognathus lanceolatus</i>	16	-	-	-	-	-	-	10	26
<i>Acanthorhodeus macropterus</i>	7	-	15	-	-	-	-	-	22
<i>Acanthorhodeus gracilis</i>	2	-	-	-	-	-	-	5	7
<i>Rhodeus ocellatus</i>	2	-	-	20	-	-	-	27	49
<i>Zacco platypus</i>	106	15	-	25	20	38	30	139	373
<i>Zacco temminckii</i>	127	-	14	-	3	-	-	-	144
<i>Zacco koreanus</i>	27	-	-	-	-	-	-	19	46
<i>Hemiculter eigenmanni</i>	-	-	-	-	-	-	1	-	1
<i>Rhynchocypris steidachneri</i>	3	-	-	-	-	-	-	-	3
Total	888	35	105	106	54	123	130	513	1,954

^aTotal 1,954 cyprinid fishes in 34 species were examined.

^b① Hantan-gang in Cheorwon-gun, Gangwon-do (2010, 2012, 2013 & 2019); ② Hantan-gang in Yeoncheon-gun, Gyeonggi-do (2013); ③ Namdae-cheon in Cheorwon-gun (2014); ④ Chatan-cheon in Yeoncheon-gun (2013) ⑤ Yeongpyeong-cheon in Pocheon-si, Gyeonggi-do (2013); ⑥ Imjin-gang in Yeoncheon-gun, (2013); ⑦ Munsan-cheon in Paju-si, Gyeonggi-do (2013); ⑧ Togyo-jeosuji in Cheorwon-gun (2018-2020).

Supplementary Table S2. Cyprinid fishes^a collected from the water systems of Han-gang in Gangwon-do, Korea

Species of fish	No. of fish collected from 7 localites ^b							Total
	①	⑩	⑪	⑫	⑬	⑭	⑮	
<i>Pungtungia herzi</i>	25	14	121	24	35	11	16	246
<i>Pseudopungtungia tenuicorpa</i>	-	-	-	2	5	-	-	7
<i>Squalidus gracilis majimae</i>	-	-	7	-	-	-	-	7
<i>Sarcocheilichthys variegatus</i>	-	-	6	-	-	-	-	6
<i>Gnathopogon strigatus</i>	-	-	26	-	-	-	-	26
<i>Pseudorasbora parva</i>	-	-	2	-	-	-	-	2
<i>Pseudogobio esocinus</i>	23	13	49	1	21	11	10	128
<i>Hemibarbus longirostris</i>	20	20	39	-	17	14	16	126
<i>Hemibarbus labeo</i>	1	-	18	1	-	-	13	33
<i>Hemibarbus mylodon</i>	-	-	-	1	5	2	10	18
<i>Microphysogobio longidorsalis</i>	2	30	35	24	22	25	25	163
<i>Microphysogobio yaluensis</i>	-	-	22	-	-	-	-	22
<i>Coreoleuciscus splendidus</i>	18	6	22	25	17	27	30	145
<i>Gobiobotia brevibarba</i>	-	10	-	1	8	-	18	37
<i>Gobiobotia macrocephala</i>	-	-	-	-	-	-	3	3
<i>Ladislavia taczanowskii</i>	-	-	-	-	4	-	-	4
<i>Carassius auratus</i>	2	15	49	-	-	-	14	80
<i>Cyprinus carpio</i>	-	-	2	-	-	1	-	3
<i>Acheilognathus lanceolatus</i>	-	3	59	-	-	-	-	62
<i>Acheilognathus majusculus</i>	6	-	-	-	-	-	-	6
<i>Acanthorhodeus macropterus</i>	-	-	-	-	-	-	10	10
<i>Acanthorhodeus gracilis</i>	-	-	4	-	-	-	-	4
<i>Rhodeus pseudosericeus</i>	-	-	10	-	-	-	-	10
<i>Zacco platypus</i>	23	29	85	20	20	26	30	233
<i>Zacco temminckii</i>	16	5	-	39	34	23	30	147
<i>Zacco koreanus</i>	-	-	63	-	-	-	-	63
<i>Opsariichthys uncirostris</i>	2	5	1	-	-	5	-	13
<i>Rhynchocypris oxycephalus</i>	-	15	23	-	10	10	-	58
<i>Rhynchocypris steidachneri</i>	-	6	-	-	-	-	-	6
Total	138	171	643	138	198	169	211	1,668

^aTotal 1,668 cyprinid fishes in 29 species were examined.

^b① Hongcheon-gang in Hongcheon-gun (2010); ⑩ Seom-gang in Hoengseong-gun (2011); ⑪ Seom-gang in Wonju-si (2018-2020); ⑫ Joyang-gang in Jeongseon-gun: (2012); ⑬ Pyeongchang-gang in Pyeongchang-gun (2013); ⑭ Soaip-cheon in Yanggu-gun (2009); ⑮ Dong-gang in Yeon-gweol-gun (2009).

Supplementary Table S3. Cyprinid fishes^a collected from the water systems of Geum-gang in Korea

Species of fish	No. of fish collected from 6 localities ^b						Total
	⑩	⑪	⑫	⑬	⑭	⑮	
<i>Pungtungia herzi</i>	25	35	15	22	3	1	101
<i>Pseudopungtungia nigra</i>	1	1	-	-	-	-	2
<i>Squalidus japonicus coreanus</i>	-	-	10	-	-	-	10
<i>Squalidus gracilis majimae</i>	16	-	1	1	-	-	18
<i>Sarcocheilichthys nigripinnis</i>	-	-	8	-	1	-	9
<i>Sarcocheilichthys variegatus</i>	-	2	4	5	-	1	12
<i>Pseudorasbora parva</i>	-	-	-	-	-	2	2
<i>Pseudogobio esocinus</i>	10	10	76	28	11	1	136
<i>Hemibarbus longirostris</i>	22	4	67	32	13	-	138
<i>Hemibarbus labeo</i>	-	-	3	5	-	-	8
<i>Microphysogobio koeensis</i>	5	-	-	-	-	-	5
<i>Abbottina springeri</i>	-	-	1	7	-	-	8
<i>Coreoleuciscus splendidus</i>	-	-	5	-	-	-	5
<i>Carassius auratus</i>	1	1	20	17	3	10	52
<i>Acheilognathus koreensis</i>	7	-	-	-	10	-	17
<i>Acheilognathus lanceolatus</i>	-	1	-	72	-	-	73
<i>Acheilognathus rhombeus</i>	-	-	-	15	-	-	15
<i>Acheilognathus yamatsutae</i>	-	-	11	-	-	-	11
<i>Acheilognathus majusculus</i>	-	-	10	-	-	-	10
<i>Acanthorhodeus gracilis</i>	-	-	1	-	-	-	1
<i>Zacco platypus</i>	40	-	38	59	4	-	141
<i>Zacco temminckii</i>	40	11	33	-	29	-	113
<i>Opsariichthys uncirostris</i>	-	-	4	18	-	7	29
<i>Rhynchocypris oxycephalus</i>	1	-	-	-	-	-	1
<i>Hemiculter eigenmanni</i>	-	-	-	-	-	6	6
<i>Hemiculter leucisculus</i>	-	-	-	-	-	1	1
Total	168	65	307	281	74	29	924

^aTotal 924 cyprinid fishes in 26 species were examined.

^b⑩ Juja-cheon in Jinan-gun, Jeollabuk-do (2012); ⑪ Geum-gang in Muju-gun, Jeollabuk-do (2012); ⑫ Geum-gang in Geumsan-gun, Chungcheongnam-do (2013-2015); ⑬ Yugu-cheon in Gongju-si, Chungcheongnam-do (2013, 2015); ⑭ Ji-cheon in Cheongyang-gun, Chungcheongnam-do (2014); ⑮ Nonsan-cheon in Nonsan-si, Chungcheongnam-do (2013).

Supplementary Table S4. Cyprinid fishes^a collected from the water systems of Mangyeong-gang, Tamjin-gang and Yeongsan-gang in Korea

Species of fish	No. of fish collected from 7 localites ^b							Total
	㉒-1	㉒-2	㉓-1	㉓-2	㉔	㉕	㉖	
<i>Pungtungia herzi</i>	98	87	152	57	70	-	2	466
<i>Squalidus gracilis majimae</i>	-	-	3	1	-	1	-	5
<i>Squalidus chankaensis</i>	-	3	-	-	-	19	-	22
<i>Gnathopogon strigatus</i>	-	11	-	-	-	-	-	11
<i>Sarcocheilichthys nigripinnis</i>	-	-	29	6	33	-	7	75
<i>Sarcocheilichthys variegatus</i>	7	2	54	20	20	-	-	103
<i>Pseudorasbora parva</i>	-	-	-	21	-	-	-	21
<i>Pseudogobio esocinus</i>	55	68	86	41	51	3	6	310
<i>Hemibarbus longirostris</i>	42	52	77	23	24	22	-	240
<i>Hemibarbus labeo</i>	-	-	-	-	-	1	-	1
<i>Coreoleuciscus splendidus</i>	-	4	-	-	-	-	-	4
<i>Ladislavia taczanowskii</i>	-	-	-	15	-	-	-	15
<i>Carassius auratus</i>	30	2	116	46	62	2	-	258
<i>Cyprinus carpio</i>	-	-	2	15	-	-	1	18
<i>Acheilognathus koreensis</i>	-	3	7	3	-	-	-	13
<i>Acheilognathus lanceolatus</i>	10	-	52	38	22	-	-	122
<i>Acheilognathus rhombeus</i>	-	1	10	41	9	-	-	61
<i>Acheilognathus yamatsutae</i>	13	-	23	-	-	-	-	36
<i>Acanthorhodeus gracilis</i>	3	-	11	-	-	-	-	14
<i>Acanthorhodeus macropterus</i>	6	-	-	-	28	-	6	40
<i>Rhodeus ocellatus</i>	-	-	-	-	-	3	-	3
<i>Zacco platypus</i>	20	80	138	53	75	30	15	411
<i>Zacco temminckii</i>	60	1	152	57	26	-	4	300
<i>Zacco koreanus</i>	-	28	-	-	-	-	-	28
<i>Opsariichthys uncirostris</i>	1	-	-	-	-	5	-	6
<i>Rhynchocypris oxycephalus</i>	-	1	-	-	-	-	-	1
<i>Hemiculter eigenmanni</i>	-	-	6	4	-	-	4	14
Total	345	343	918	441	420	86	45	2,598

^aTotal 2,598 cyprinid fishes in 27 species were examined.

^b㉒-1. Mangyeong-gang in Wanju-gun, Jeollabuk-do (2013-2015); ㉒-2. Mangyeong-gang in Wanju-gun, Jeollabuk-do (2018, 2019); ㉓-1. Tamjin-gang in Jangheung-gun, Jeollanam-do (2014-2017); ㉓-2. Tamjin-gang in Jangheung-gun (2018, 2019); ㉔ Tamjin-gang in Gangjin-gun, Jeollanam-do (2014, 2017); ㉕ Jiseok-cheon in Naju-si, Jeollanam-do (2013); ㉖ Yeongam-cheon in Yeongam-gun, Jeollanam-do (2013).

Supplementary Table S5. Cyprinid fishes^a collected from the water systems of Seomjin-gang in Jeollabuk-do and Jeollanam-do, Korea

Species of fish	No. of fish collected from 7 localities ^b							Total
	㉗	㉘-1	㉘-2	㉙	㉚-1	㉚-2	㉛	
<i>Pungtungia herzi</i>	-	56	104	83	22	44	33	342
<i>Squalidus japonicus coreanus</i>	20	11	44	-	27	72	32	206
<i>Squalidus gracilis majimae</i>	-	6	-	6	-	1	8	21
<i>Squalidus chankaensis</i>	35	-	48	-	-	29	-	112
<i>Squalidus multimaculatus</i>	-	-	2	-	-	-	-	2
<i>Gnathopogon strigatus</i>	-	5	2	3	-	-	-	10
<i>Sarcocheilichthys nigripinnis</i>	-	-	-	20	-	18	15	53
<i>Sarcocheilichthys variegatus</i>	-	12	34	53	31	34	44	208
<i>Pseudorasbora parva</i>	-	-	-	2	-	-	3	5
<i>Pseudogobio esocinus</i>	5	32	75	37	16	53	7	225
<i>Hemibarbus longirostris</i>	1	5	20	2	20	27	1	76
<i>Hemibarbus labeo</i>	56	4	19	1	2	8	16	106
<i>Microphysogobio koreensis</i>	-	-	9	7	16	1	6	39
<i>Microphysogobio lomgidorsalis</i>	-	-	2	-	-	-	-	2
<i>Microphysogobio yaluensis</i>	-	-	-	-	-	-	12	12
<i>Microphysogobio jeoni</i>	6	-	-	-	-	-	-	6
<i>Coreoleuciscus splendidus</i>	-	4	10	2	37	35	10	98
<i>Abbottina springeri</i>	-	3	3	2	-	-	-	8
<i>Abbottina rivularis</i>	-	-	-	-	-	-	5	5
<i>Ladislavia taczanowskii</i>	-	-	13	-	1	-	-	14
<i>Carassius auratus</i>	3	14	15	4	-	-	5	41
<i>Cyprinus carpio</i>	-	2	2	-	-	-	-	4
<i>Acheilognathus koreensis</i>	-	12	1	-	-	-	-	13
<i>Acheilognathus lanceolatus</i>	-	1	14	2	-	3	14	34
<i>Acheilognathus rhombeus</i>	-	10	17	-	-	4	12	43
<i>Acheilognathus yamatsutae</i>	-	3	5	20	-	15	-	43
<i>Acheilognathus majusculus</i>	-	-	15	12	6	20	4	57
<i>Acanthorhodeus gracilis</i>	6	6	7	-	-	-	5	24
<i>Acanthorhodeus macropterus</i>	-	1	-	-	-	-	-	1
<i>Rhodeus ocellatus</i>	3	-	-	-	-	-	-	3
<i>Zacco platypus</i>	80	51	91	56	43	115	48	484
<i>Zacco temminckii</i>	-	-	20	-	-	-	-	20
<i>Zacco koreanus</i>	-	15	36	63	52	103	29	298
<i>Opsariichthys uncirostris</i>	21	14	4	-	2	-	13	54
<i>Rhynchocypris oxycephalus</i>	-	-	-	21	-	-	-	21
<i>Hemiculter leucisculus</i>	-	1	-	-	-	-	-	1
Total	236	268	612	396	275	582	322	2,691

^aTotal 2,691 cyprinid fishes in 36 species were examined.

^b㉗ Osu-cheon in Imsil-gun, Jeollabuk-do (2012, 2013); ㉘-1. Seomjin-gang in Sunchang-gun, Jeollabuk-do (2014, 2015); ㉘-2. Seomjin-gang in Sunchang-gun (2018-2020); ㉙ Songdae-cheon in Namwon-si, Jeollabuk-do (2012, 2013, 2020); ㉚-1. Seomjin-gang in Gokseong-gun, Jeollanam-do (2015, 2016); ㉚-2. Seomjin-gang in Gokseong-gun (2018-2020); ㉛ Seomjin-gang in Gurye-gun, Jeollanam-do (2014, 2020).

Supplementary Table S6. Cyprinid fishes^a collected from the water systems of Seomjin-gang in Hadong-gun, Gyeongsangnam-do, Korea

Species of fish	No. of fish collected from 5 localities ^b					Total
	㉓	㉔	㉕	㉖	㉗	
<i>Pungtungia herzi</i>	17	40	37	42	2	138
<i>Squalidus japonicus coreanus</i>	13	-	-	-	4	17
<i>Squalidus gracilis majimae</i>	-	-	3	1	-	4
<i>Squalidus chankaensis</i>	-	-	-	-	12	12
<i>Sarcocheilichthys nigripinnis</i>	-	-	-	-	29	29
<i>Sarcocheilichthys variegatus</i>	7	-	-	-	1	8
<i>Pseudorasbora parva</i>	-	-	1	-	6	7
<i>Pseudogobio esocinus</i>	13	27	53	23	12	128
<i>Hemibarbus longirostris</i>	-	-	15	14	6	35
<i>Microphysogobio koreensis</i>	2	-	-	-	-	2
<i>Coreoleuciscus splendidus</i>	1	7	2	4	-	14
<i>Abbottina springeri</i>	-	-	-	7	2	9
<i>Ladislavia taczanowskii</i>	1	-	-	-	-	1
<i>Carassius auratus</i>	-	5	26	21	5	57
<i>Acheilognathus koreensis</i>	7	1	27	52	-	87
<i>Acheilognathus rhombeus</i>	-	-	-	-	6	6
<i>Acheilognathus yamatsutae</i>	30	-	-	-	6	36
<i>Acheilognathus lanceolatus</i>	-	-	-	-	4	4
<i>Acheilognathus majusculus</i>	-	-	-	-	1	1
<i>Acheilognathus somjinensis</i>	18	-	-	-	-	18
<i>Acanthorhodeus gracilis</i>	-	-	2	-	-	2
<i>Zacco platypus</i>	30	25	63	37	50	205
<i>Zacco temminckii</i>	-	-	19	10	28	57
<i>Zacco koreanus</i>	40	40	74	70	-	224
Total	179	145	322	281	174	1,101

^aTotal 1,101 cyprinid fishes in 24 species were examined.

^b㉓ Hwagye-cheon (2020); ㉔ Akyang-cheon (2018); ㉕ Namsan-cheon (2015, 2016, 2019); ㉖ Hoeng-cheon (2014, 2016, 2019); ㉗ Jugyo-cheon (2011, 2018).

Supplementary Table S7. Cyprinid fishes^a collected from the water systems of Nakdong-gang in Gyeongsangbuk-do and Gyeongsangnam-do, Korea

Species of fish	No. of fish collected from 9 localities ^b									Total
	㉓7	㉓8	㉓9-1	㉓9-2	㉓9-3	㉓0-1	㉓0-2	㉓1	㉓2	
<i>Pungtungia herzi</i>	26	234	72	97	105	408	138	123	1	1,204
<i>Squalidus japonicus coreanus</i>	-	-	24	50	43	67	37	25	-	246
<i>Squalidus gracilis majimae</i>	8	3	30	13	10	1	6	101	12	184
<i>Squalidus chankaensis</i>	-	-	-	-	46	69	-	20	1	136
<i>Sarcocheilichthys nigripinnis</i>	-	-	-	-	4	13	2	-	-	19
<i>Sarcocheilichthys variegatus</i>	3	-	19	6	11	14	12	-	-	65
<i>Pseudorasbora parva</i>	-	-	4	8	4	-	-	7	-	23
<i>Pseudogobio esocinus</i>	-	5	10	3	13	40	36	14	12	133
<i>Hemibarbus longirostris</i>	-	1	-	1	8	66	41	9	-	126
<i>Hemibarbus labeo</i>	-	1	-	-	1	1	14	-	2	19
<i>Microphysogobio koreensis</i>	1	-	1	2	7	-	-	28	-	39
<i>Microphysogobio jeoni</i>	-	-	1	-	-	-	-	-	-	1
<i>Coreoleuciscus splendidus</i>	28	6	-	-	-	-	-	1	-	35
<i>Abbottina springeri</i>	5	-	2	4	-	-	-	-	-	11
<i>Ladislabia taczanowskii</i>	-	-	-	-	1	-	-	-	-	1
<i>Carassius auratus</i>	-	17	17	17	60	22	72	83	10	298
<i>Acheilognathus koreensis</i>	18	94	40	90	67	44	54	147	-	554
<i>Acheilognathus lanceolatus</i>	-	20	2	4	4	-	-	-	4	34
<i>Acheilognathus rhombeus</i>	-	1	11	24	77	8	34	-	-	155
<i>Acheilognathus yamatsutae</i>	2	-	41	58	19	11	78	-	-	209
<i>Acheilognathus majusculus</i>	-	1	15	-	-	133	99	-	-	248
<i>Acanthorhodeus gracilis</i>	-	-	-	5	1	20	41	-	-	67
<i>Acanthorhodeus macropterus</i>	-	33	3	1	-	21	6	-	21	85
<i>Rhodeus pseudosericeus</i>	-	-	-	-	1	-	-	-	-	1
<i>Zacco platypus</i>	34	117	129	130	123	125	137	62	44	901
<i>Zacco temminckii</i>	30	-	75	59	-	63	111	-	30	368
<i>Zacco koreanus</i>	-	98	-	16	104	134	60	118	-	530
<i>Opsariichthys uncirostris</i>	-	3	5	3	2	-	-	-	27	40
<i>Rhynchocypris oxycephalus</i>	-	-	-	1	4	-	-	-	-	5
Total	155	634	501	592	715	1,260	978	738	164	5,737

^aTotal 5,737 cyprinid fishes in 29 species were examined.

^b㉓7 Banbyeon-cheon in Yeongyang-gun, Gyeongsangbuk-do (2015); ㉓8 Yongjeon-cheon in Cheongsong-gun, Gyeongsangbuk-do (2019, 2020); ㉓9-1. Wi-cheon in Gunwi-gun, Gyeongsangbuk-do (2011, 2013, 2014); ㉓9-2. Wi-cheon (2015-2017); ㉓9-3. Wi-cheon (2018-2020); ㉓0-1. Yang-cheon in Sancheong-gun, Gyeongsangnam-do (2011-2014); ㉓0-2. Yang-cheon (2015-2017); ㉓1 Deokcheon-gang in Sancheong-gun, Gyeongsangnam-do (2018-2020); ㉓2 Jisu-cheon in Jinju-si and Haman-cheon in Haman-gun, Gyeongsangnam-do (2014).

Supplementary Table S8. Cyprinid fishes^a collected from the water systems in the east coastal areas of Korea

Species of fish	No. of fish collected from 7 localites ^b							Total
	④③	④④	④⑤	④⑥	④⑦	④⑧	④⑨	
<i>Pungtungia herzi</i>	31	6	17	47	43	18	48	210
<i>Squalidus gracilis majimae</i>	-	3	-	6	15	-	1	25
<i>Sarcocheilichthys nigripinnis</i>	-	-	-	-	-	2	-	2
<i>Pseudogobio esocinus</i>	-	-	-	9	-	-	-	9
<i>Hemibarbus longirostris</i>	1	-	-	11	-	-	-	12
<i>Hemibarbus labeo</i>	-	-	-	-	-	-	5	5
<i>Coreoleuciscus splendidus</i>	-	50	8	-	4	-	-	62
<i>Ladislabia taczanowskii</i>	-	6	-	-	-	-	-	6
<i>Carassius auratus</i>	4	-	-	33	18	17	33	105
<i>Cyprinus capio</i>	-	-	-	-	-	2	-	2
<i>Acheilognathus rhombeus</i>	-	-	-	-	10	-	20	30
<i>Acanthorhodeus gracilis</i>	-	-	-	-	-	-	17	17
<i>Acanthorhodeus macropterus</i>	-	-	-	-	-	3	-	3
<i>Zacco platypus</i>	33	38	19	30	56	8	29	213
<i>Zacco temminckii</i>	65	-	20	15	-	33	51	184
<i>Zacco koreanus</i>	-	-	-	-	11	-	-	11
<i>Opsariichthys uncirostris</i>	-	-	-	-	6	3	10	19
<i>Tribolodon hakonensis</i>	32	30	-	16	14	-	-	92
<i>Phoxinus phoxinus</i>	-	1	-	-	-	-	-	1
<i>Rhynchocypris oxycephalus</i>	28	34	25	-	2	1	21	111
Total	194	168	89	167	179	87	235	1,119

^aTotal 1,119 cyprinid fishes in 20 species were examined.

^b④③ Namdae-cheon in Yangyang-gun, Gangwon-do (2009, 2015); ④④ Osip-cheon in Samcheok-si, Gangwon-do (2009, 2015); ④⑤ Gagok-cheon in Samcheok-si (2009); ④⑥ Whangpi-cheon in Uljin-gun, Gyeongsangbuk-do (2015); ④⑦ Osip-cheon in Yeongdeok-gun, Gyeongsangbuk-do (2015, 2018); ④⑧ Gygae-cheon in Gyeongju-si, Gyeongsangbuk-do (2015); ④⑨ Taehwa-gang and Cheokgwa-cheon, in Ulsan Metropolitan City (2015).

Supplementary Table S9. Infection status of *Clonorchis sinensis* metacercariae (CsMc) in cyprinid fish from the water systems of Hantan-/Imjin-gang and Han-gang in Korea

Locality (Year) and fish sp.	No. of fish examined	No. (%) of fish infected	No. of CsMc detected	
			Range	Average
① Hantan-gang in Cheorwon-gun, Gangwon-do (2010-2013, 2019)				
<i>Pungtungia herzi</i>	137	30 (21.9)	1-11	2.3
<i>Squalidus japonicus coreanus</i>	22	2 (100)	-	2.0
<i>Hemibarbus mylodon</i>	38	1 (2.6)	-	1.0
<i>Microphysogobio longidorsalis</i>	101	1 (1.0)	-	2.0
<i>Ladislabia taczanowskii</i>	1	1 (100)	-	2.0
<i>Acheilognathus rhombeus</i>	40	2 (5.0)	-	10.0
<i>Zacco platypus</i>	106	1 (0.9)	-	2.0
Subtotal	425	38 (8.9)	1-11	2.2
⑦ Munsan-cheon in Paju-si, Gyeonggi-do (2015)				
<i>Squalidus gracilis majimae</i>	1	1 (100)	-	4.0
<i>Pseudorasbora parva</i>	30	24 (85.3)	1-1,012	52.9
<i>Pseudogobio esocinus</i>	30	2 (6.7)	1-16	8.5
<i>Abbotina rivulais</i>	12	10 (83.3)	1-22	8.4
<i>Hemibarbus longirostris</i>	6	1 (16.7)	-	2.0
<i>Carassius auratus</i>	20	1 (5.0)	-	1.0
<i>Hemiculter eigenmanni</i>	1	1 (100)	-	46.0
Subtotal	100	40 (40.0)	1-1,012	35.6
⑧ Togyo-jeosuji in Cheorwon-gun, Gangwon-do (2018-2020)				
<i>Pungtungia herzi</i>	16	5 (31.3)	18-654	290.0
<i>Pseudorasbora parva</i>	56	46 (82.1)	1-511	87.9
<i>Pseudogobio esocinus</i>	38	10 (26.3)	1-10	2.6
<i>Hemibarbus longirostris</i>	9	6 (66.7)	1-8	3.0
<i>Hemibarbus labeo</i>	68	21 (30.9)	1-10	2.4
<i>Microphysogobio longidorsalis</i>	10	2 (20.0)	8-41	24.5
<i>Abbotina rivulais</i>	18	13 (72.2)	2-60	10.3
<i>Acheilognathus rhombeus</i>	25	25 (100)	1-45	9.9
<i>Acanthorhodeus gracilis</i>	5	5 (100)	16-233	124.6
<i>Rhodeus ocellatus</i>	27	15 (55.6)	1-11	3.1
<i>Zacco platypus</i>	139	32 (23.0)	1-22	3.7
Subtotal	411	180 (43.8)	1-654	37.8
⑩ Seom-gang in Wonju-si, Gangwon-do (2018-2020)				
<i>Pungtungia herzi</i>	121	4 (3.3)	1-3	1.8
<i>Sarcocheilichthys variegatus</i>	6	2 (33.3)	-	1.0
<i>Pseudorasbora parva</i>	2	1 (50.0)	-	1.0
Subtotal	129	7 (5.4)	1-3	1.6
Total	1,065	265 (24.9)	1-1,012	31.4

Supplementary Table S10. Infection status of *Clonorchis sinensis* metacercariae in cyprinid fish from the water systems of Geum-gang in Korea

Locality (Year) and fish sp.	No. of fish examined	No. (%) of fish infected	No. of CsMc detected	
			Range	Average
⑰ Geum-gang in Muju-gun, Jeollabuk-do				
<i>Pungtungia herzi</i>	35	34 (97.1)	1-141	95.2
<i>Sarcocheilichthys variegatus</i>	2	2 (100)	6-11	8.5
Subtotal	37	36 (97.3)	1-141	90.4
⑱ Geum-gang in Geumsan-gun, Chungcheongnam-do				
<i>Pungtungia herzi</i>	15	15 (100)	3-924	98.1
<i>Squalidus japonicus coreanus</i>	10	8 (80.0)	1-15	4.6
<i>Squalidus gracilis majimae</i>	1	1 (100)	-	28.0
<i>Sarcocheilichthys nigripinnis</i>	8	7 (87.5)	1-69	14.4
<i>Sarcocheilichthys variegatus</i>	4	4 (100)	2-22	13.5
<i>Pseudogobio esocinus</i>	76	4 (5.3)	1-2	1.3
<i>Hemibarbus longirostris</i>	67	19 (28.4)	1-2	1.2
<i>Coreoleuciscus splendidus</i>	5	2 (40.0)	1-6	3.5
<i>Acheilognathus yamatsutae</i>	11	2 (18.2)	-	1.0
<i>Zacco platypus</i>	38	2 (5.3)	-	1.0
Subtotal	235	64 (27.2)	1-924	27.0
⑳ Ji-cheon in Cheongyang-gun, Chungcheongnam-do				
<i>Pungtungia herzi</i>	3	3 (100)	8-81	50.7
<i>Sarcocheilichthys nigripinnis</i>	1	1 (100)	-	63.0
<i>Pseudogobio esocinus</i>	11	1 (9.1)	-	3.0
<i>Hemibarbus longirostris</i>	13	7 (53.9)	1-3	1.9
Subtotal	28	12 (41.9)	1-81	19.3
㉑ Nonsan-cheon in Nonsan-si, Chungcheongnam-do				
<i>Sarcocheilichthys variegatus</i>	1	1 (100)	-	1.0
<i>Pseudorasbora parva</i>	2	1 (50.0)	-	2.0
<i>Opsariichthys uncirostris</i>	7	1 (14.3)	-	1.0
<i>Hemiculter eigenmanni</i>	6	4 (66.7)	1-3	2.0
Subtotal	16	7 (43.8)	1-3	1.7
Total	316	119 (37.7)	1-924	43.9

Supplementary Table S11. Infection status of *Clonorchis sinensis* metacercariae in cyprinid fish from Mangyeong-gang in Wanju-gun, Jeollabuk-do, Korea

Locality (Year) and fish sp.	No. of fish examined	No. (%) of fish infected	No. of CsMc detected	
			Range	Average
㉔-1. Soyang-cheon (2013-2015)				
<i>Pungtungia herzi</i>	98	97 (99.0)	1-225	25.8
<i>Sarcocheilichthys variegatus</i>	7	7 (100)	1-19	7.3
<i>Pseudogobio esocinus</i>	55	2 (3.6)	-	1.0
<i>Hemibarbus longirostris</i>	42	3 (7.1)	-	1.0
<i>Acheilognathus yamatsutae</i>	13	4 (30.8)	1-2	1.3
<i>Acanthorhodeus macropterus</i>	6	1 (16.7)	-	1.0
<i>Zacco platypus</i>	20	2 (10.0)	-	1.0
Subtotal	241	116 (48.1)	1-225	22.2
㉔-2. Soyang-cheon (2018 & 2019)				
<i>Pungtungia herzi</i>	87	58 (66.7)	1-2,310	351.0
<i>Squalidus chankaensis</i>	3	3 (100)	3-8	4.7
<i>Gnathopogon strigatus</i>	11	5 (45.5)	1-2	1.6
<i>Sarcocheilichthys variegatus</i>	2	2 (100)	75-433	254.0
<i>Pseudogobio esocinus</i>	68	11 (16.2)	1-5	1.7
<i>Hemibarbus longirostris</i>	52	3 (5.8)	2-6	3.7
<i>Coreoleuciscus splendidus</i>	4	1 (25.0)	-	1.0
<i>Acheilognathus koreensis</i>	3	1 (33.3)	-	11.0
<i>Zacco platypus</i>	80	4 (5.0)	1-7	3.3
<i>Zacco koreanus</i>	28	1 (3.6)	-	1.0
Subtotal	338	89 (21.8)	1-924	235.0
Total	579	205 (35.4)	1-2,310	114.6

Supplementary Table S12. Infection status of *Clonorchis sinensis* metacercariae in cyprinid fish from the water systems of Tamjin-gang in Jeollanam-do, Korea

Locality (Year) and fish sp.	No. of fish examined	No. (%) of fish infected	No. of CsMc detected	
			Range	Average
㉓-1. Tamjin-gang in Jangheung-gun (2014-2017)				
<i>Pungtungia herzi</i>	152	152 (100)	1-950	95.0
<i>Squalidus gracilis majimae</i>	3	2 (66.7)	3-85	44.0
<i>Sarcocheilichthys nigripinnis</i>	29	26 (89.7)	1-116	32.2
<i>Sarcocheilichthys variegatus</i>	54	51 (94.4)	1-133	18.5
<i>Pseudogobio esocinus</i>	86	5 (5.8)	1-2	1-2
<i>Hemibarbus longirostris</i>	77	46 (59.7)	1-29	5.6
<i>Acheilognathus yamatsutae</i>	23	2 (8.7)	1-4	2.5
<i>Acheilognathus rhombeus</i>	10	6 (60.0)	1-29	6.7
<i>Acheilognathus lanceolatus</i>	52	11 (21.2)	1-4	1.3
<i>Acheilognathus koreensis</i>	7	3 (42.9)	1-2	1.3
<i>Acanthorhodeus gracilis</i>	11	10 (90.9)	1-28	7.5
<i>Zacco platypus</i>	138	2 (1.4)	-	1.0
<i>Hemiculter eigenmanni</i>	6	4 (66.7)	1-27	8.0
Subtotal	648	320 (49.4)	1-950	51.5
㉓-2. Tamjin-gang in Jangheung-gun (2018-2019)				
<i>Pungtungia herzi</i>	57	54 (94.7)	2-350	86.6
<i>Sarcocheilichthys nigripinnis</i>	6	5 (83.3)	3-103	40.0
<i>Sarcocheilichthys variegatus</i>	20	20 (100)	3-118	20.7
<i>Pseudorasbora parva</i>	21	16 (76.2)	1-178	27.0
<i>Pseudogobio esocinus</i>	41	3 (7.3)	1-3	1.7
<i>Hemibarbus longirostris</i>	23	16 (69.6)	1-6	2.8
<i>Ladislavia taczanowskii</i>	15	14 (93.3)	2-53	15.8
<i>Acheilognathus rhombeus</i>	41	4 (9.8)	1-40	11.5
<i>Acheilognathus lanceolatus</i>	38	7 (18.4)	1-2	1.4
<i>Zacco platypus</i>	53	2 (3.8)	1-6	3.5
<i>Hemiculter eigenmanni</i>	4	3 (75.0)	10-20	16.0
Subtotal	319	144 (45.1)	1-350	42.4
㉔ Tamjin-gang in Gangjin-gun (2014, 2017)				
<i>Pungtungia herzi</i>	70	70 (100)	7-745	120.8
<i>Sarcocheilichthys nigripinnis</i>	33	33 (100)	1-57	12.4
<i>Sarcocheilichthys variegatus</i>	20	20 (100)	1-34	13.1
<i>Pseudogobio esocinus</i>	51	5 (9.8)	1-2	1.2
<i>Hemibarbus longirostris</i>	24	12 (50.0)	1-6	2.6
<i>Acheilognathus lanceolatus</i>	22	6 (27.3)	1-2	1.3
<i>Acheilognathus rhombeus</i>	9	7 (77.8)	1-12	4.0
<i>Acanthorhodeus macropterus</i>	28	8 (28.6)	1-4	1.6
Subtotal	257	161 (62.7)	1-745	57.2
Total	1,224	625 (51.1)	1-950	50.9

Supplementary Table S13. Infection status of *Clonorchis sinensis* metacercariae in cyprinid fish from the water systems of Yeongsang-gang in Jeollanam-do, Korea

Locality (Year) and fish sp.	No. of fish examined	No. (%) of fish infected	No. of CsMc detected	
			Range	Average
㉕ Jiseok-cheon in Naju-si (2015)				
<i>Squalidus gracilis majimae</i>	1	1 (100)	-	5.0
<i>Squalidus chankaensis</i>	19	19 (100)	1-30	8.9
<i>Pseudogobio esocinus</i>	3	1 (33.3)	-	8.0
<i>Hemibarbus longirostris</i>	22	11 (50.0)	1-6	1.7
<i>Rhodeus ocellatus</i>	3	1 (33.3)	-	15.0
Subtotal	48	33 (68.8)	1-30	6.6
㉖ Yeongam-cheon in Yeongam-gun (2015)				
<i>Pungtungia herzi</i>	2	2 (100)	1-5	3.0
<i>Sarcocheilichthys nigripinnis</i>	7	4 (57.1)	2-20	11.5
<i>Pseudogobio esocinus</i>	6	1 (16.7)	-	1.0
<i>Hemiculter eigenmanni</i>	4	1 (25.0)	-	1.0
Subtotal	19	19	1-20	6.8
Total	67	41 (61.2)	1-30	6.6

Supplementary Table S14. Infection status of *Clonorchis sinensis* metacercariae in cyprinid fish from Seomjin-gang (upper reaches) in Jeollabuk-do, Korea

Locality (Year) and fish sp.	No. of fish examined	No. (%) of fish infected	No. of CsMc detected	
			Range	Average
㉓ Osu-cheon in Imsil-gun (2012, 2013)				
<i>Squalidus chankaensis</i>	35	27 (77.1)	1-24	4.9
<i>Pseudogobio esocinus</i>	5	1 (20.0)	-	1.0
<i>Hemibarbus longirostris</i>	1	1 (100)	-	3.0
<i>Microphysogobio jeoni</i>	6	1 (16.7)	-	2.0
<i>Zacco platypus</i>	80	1 (1.3)	-	5.0
<i>Opsariichthys uncirostris</i>	21	2 (9.5)	-	1.0
Subtotal	148	33 (22.3)	1-24	4.4
㉔-1. Seomjin-gang in Sunchang-gun (2014, 2015)				
<i>Pungtungia herzi</i>	56	45 (80.4)	1-79	15.2
<i>Squalidus japonicus coreanus</i>	11	6 (54.6)	1-5	3.3
<i>Squalidus gracilis majimae</i>	6	6 (100)	1-3	2.0
<i>Sarcocheilichthys variegatus</i>	12	7 (58.3)	1-17	6.6
<i>Hemibarbus longirostris</i>	5	1 (20.0)	-	1.0
<i>Hemibarbus labeo</i>	4	1 (25.0)	-	1.0
<i>Acheilognathus rhombeus</i>	10	1 (10.0)	-	1.0
<i>Acheilognathus yamatsutae</i>	3	1 (33.3)	-	1.0
<i>Hemiculter leucisculus</i>	1	1 (100)	-	2.0
Subtotal	108	69 (63.9)	1-79	11.1
㉔-2. Seomjin-gang in Sunchang-gun (2018-2020)				
<i>Pungtungia herzi</i>	104	94 (90.4)	1-484	28.6
<i>Squalidus japonicus coreanus</i>	44	16 (36.4)	1-6	1.9
<i>Squalidus chankaensis</i>	48	35 (72.9)	1-16	3.7
<i>Squalidus multimaculatus</i>	2	2 (100)	1-16	8.5
<i>Gnathopogon strigatus</i>	2	2 (100)	1-20	10.5
<i>Sarcocheilichthys variegatus</i>	34	30 (88.2)	1-30	6.7
<i>Pseudogobio esocinus</i>	75	4 (5.3)	1-2	1.3
<i>Hemibarbus longirostris</i>	20	3 (15.0)	1-15	6.0
<i>Hemibarbus labeo</i>	19	1 (5.3)	-	1.0
<i>Microphysogobio koreensis</i>	9	5 (55.6)	1-5	2.4
<i>Microphysogobio longidorsalis</i>	2	2 (100)	5-9	7.0
<i>Abbotina revulais</i>	3	1 (33.3)	-	1.0
<i>Ladislavia taczanowskii</i>	13	10 (76.9)	1-198	31.1
<i>Acheilognathus rhombeus</i>	17	5 (29.4)	1-4	2.4
<i>Acheilognathus koreensis</i>	1	1 (100)	-	9.0
<i>Zacco platypus</i>	91	3 (3.3)	-	1.0
<i>Opsariichthys uncirostris</i>	4	1 (25.0)	-	1.0
Subtotal	488	215 (44.1)	1-484	16.1
㉕ Songdae-cheon in Namwon-si (2012, 2013, 2020)				
<i>Pungtungia herzi</i>	83	60 (72.3)	1-92	14.4
<i>Squalidus gracilis majimae</i>	6	4 (66.7)	2-13	6.0
<i>Gnathopogon strigatus</i>	3	1 (33.3)	-	28.0
<i>Sarcocheilichthys nigripinnis</i>	20	15 (75.0)	1-6	1.6
<i>Sarcocheilichthys variegatus</i>	53	43 (81.1)	1-22	6.1
<i>Microphysogobio koeensis</i>	7	2 (28.6)	1-7	4.0
<i>Acheilognathus yamatsutae</i>	20	2 (10.0)	-	1.0
Subtotal	192	127 (66.1)	1-92	9.5
Total	936	444 (47.4)	1-484	12.6

Supplementary Table S15. Infection status of *Clonorchis sinensis* metacercariae in cyprinid fish from Seomjin-gang (middle reaches) in Jeollanam-do, Korea

Locality (Year) and fish sp.	No. of fish examined	No. (%) of fish infected	No. of CsMc detected	
			Range	Average
㉔-1. Seomjin-gang in Gokseong-gun (2015, 2016)				
<i>Pungtungia herzi</i>	22	21 (95.5)	1-348	86.0
<i>Squalidus japonicus coreanus</i>	27	18 (66.7)	1-46	7.3
<i>Sarcocheilichthys variegatus</i>	31	28 (90.3)	1-50	8.8
<i>Pseudogobio esocinus</i>	16	4 (25.0)	-	1.0
<i>Hemibarbus longirostris</i>	20	11 (55.0)	1-3	1.5
<i>Microphysogobio koeensis</i>	16	7 (43.8)	1-3	1.6
<i>Coreoleuciscus splendidus</i>	37	6 (16.2)	1-2	1.2
<i>Ladislabia taczanowskii</i>	1	1 (100)	-	1.0
<i>Acheilognathus majusculus</i>	6	2 (33.3)	1-3	2.0
<i>Zacco platypus</i>	43	1 (2.3)	-	1.0
Subtotal	219	99 (45.2)	1-348	22.5
㉔-2. Seomjin-gang in Gokseong-gun (2018-2020)				
<i>Pungtungia herzi</i>	44	36 (81.8)	1-50	9.8
<i>Squalidus japonicus coreanus</i>	72	48 (66.7)	1-13	3.6
<i>Squalidus chankaensis</i>	29	25 (86.2)	1-10	4.4
<i>Sarcocheilichthys nigripinnis</i>	18	17 (94.4)	1-99	18.4
<i>Sarcocheilichthys variegatus</i>	34	10 (29.4)	1-23	7.5
<i>Pseudogobio esocinus</i>	53	6 (11.3)	-	1.0
<i>Hemibarbus longirostris</i>	27	6 (22.2)	1-3	1.8
<i>Coreoleuciscus splendidus</i>	35	6 (17.1)	1-2	1.2
<i>Zacco platypus</i>	115	1 (0.9)	-	3.0
Subtotal	427	155 (36.3)	1-99	6.8
㉕ Seomjin-gang in Gurye-gun (2014, 2020)				
<i>Pungtungia herzi</i>	33	23 (69.7)	1-1,580	154.5
<i>Squalidus japonicus coreanus</i>	32	18 (56.3)	1-125	16.1
<i>Squalidus gracilis majimae</i>	8	8 (100)	10-47	23.6
<i>Sarcocheilichthys nigripinnis</i>	15	11 (73.3)	1-41	7.7
<i>Sarcocheilichthys variegatus</i>	44	30 (68.2)	1-29	4.9
<i>Pseudorasbora parva</i>	3	3 (100)	67-128	102.3
<i>Hemibarbus labeo</i>	16	2 (12.5)	-	1.0
<i>Microphysogobio koreensis</i>	6	2 (33.3)	-	1.0
<i>Coreoleuciscus splendidus</i>	10	1 (10.0)	-	1.0
<i>Abbottina rivularis</i>	5	4 (80.0)	4-6	4.5
<i>Acheilognathus rhombeus</i>	12	9 (75.0)	2-179	25.0
<i>Acanthorhodeus gracilis</i>	5	2 (40.0)	2-13	7.5
<i>Acheilognathus lanceolatus</i>	14	1 (7.1)	-	1.0
<i>Acheilognathus majusculus</i>	4	1 (25.0)	-	1.0
Subtotal	207	115 (55.6)	1-1,580	42.1
Total	853	369 (43.3)	1-1,580	22.0

Supplementary Table S16. Infection status of *Clonorchis sinensis* metacercariae in cyprinid fish from Seomjin-gang (lower reaches) in Hadong-gun, Gyeongsangnam-do, Korea

Locality (Year) and fish sp.	No. of fish examined	No. (%) of fish infected	No. of CsMc detected	
			Range	Average
③② Hwagye-cheon (2020)				
<i>Pungtungia herzi</i>	17	7 (41.2)	1-13	6.7
<i>Squalidus japonicus coreanus</i>	13	3 (23.1)	-	4.0
<i>Sarcocheilichthys variegatus</i>	7	4 (57.1)	2-14	7.5
<i>Ladislabia taczanowskii</i>	1	1 (100)	-	3.0
Subtotal	38	15 (39.5)	1-14	6.1
③③ Akyang-cheon (2018)				
<i>Coreoleuciscus splendidus</i>	7	1 (14.3)	-	1.0
③④ Namsan-cheon (2015, 2016, 2019)				
<i>Pungtungia herzi</i>	37	3 (8.1)	1-336	113.0
③⑤ Hoeng-cheon (2014, 2016, 2019)				
<i>Carassius auratus</i>	21	1 (4.8)	-	1.0
<i>Zacco koreanus</i>	70	1 (1.4)	-	1.0
Subtotal	91	2 (2.2)	-	1.0
③⑥ Jugyo-cheon (2011, 2018)				
<i>Squalidus japonicus coreanus</i>	4	2 (50.0)	26-58	42.0
<i>Sarcocheilichthys variegatus</i>	1	1 (100)	-	21.0
<i>Pseudorasbora parva</i>	6	1 (16.7)	-	28.0
<i>Abbottina springeri</i>	2	1 (50.0)	-	1.0
Subtotal	13	5 (38.5)	-	26.8
Total	186	26 (14.0)	1-336	21.8

Supplementary Table S17. Infection status of *Clonorchis sinensis* metacercariae in cyprinid fish from Banbyun-cheon and Yongjeon-cheon in Gyeongsangbuk-do, Korea

Locality (Year) and fish sp.	No. of fish examined	No. (%) of fish infected	No. of CsMc detected	
			Range	Average
③⑦ Banbyun-cheon in Yeongyang-gun (2015)				
<i>Pungtungia herzi</i>	26	26 (100)	118-2,220	615.0
<i>Squalidus gracilis majimae</i>	8	8 (100)	31-467	266.8
<i>Sarcocheilichthys variegatus</i>	3	3 (100)	22-155	76.7
<i>Microphysogobio koeensis</i>	1	1 (100)	-	132.0
<i>Abbottina springeri</i>	5	5 (100)	4-70	25.0
<i>Coreoleuciscus splendidus</i>	28	27 (96.4)	2-62	13.9
<i>Acheilognathus koreensis</i>	18	17 (94.4)	1-60	11.2
<i>Acheilognathus yamatsutae</i>	2	1 (50.0)	-	2.0
<i>Zacco platypus</i>	34	14 (41.2)	1-127	15.1
Subtotal	125	102 (81.6)	1-2,220	190.1
③⑧ Yongjeon-cheon in Cheongsong-gun (2019, 2020)				
<i>Pungtungia herzi</i>	234	226 (96.6)	1-21,510	1,098.0
<i>Squalidus gracilis majimae</i>	3	2 (66.7)	31-1,340	686.0
<i>Pseudogobio esocinus</i>	5	5 (100)	1-18	10.4
<i>Carassius auratus</i>	17	1 (5.9)	-	1.0
<i>Acheilognathus koreensis</i>	94	70 (74.5)	1-154	11.1
<i>Acanthorhodeus macropterus</i>	33	18 (54.5)	1-52	6.0
<i>Acheilognathus lanceolatus</i>	20	7 (35.0)	1-357	125.0
<i>Acheilognathus majusculus</i>	1	1 (100)	-	176.0
<i>Zacco platypus</i>	117	38 (32.5)	1-109	11.8
<i>Zacco koreanus</i>	98	1 (1.0)	-	1.0
<i>Opsariichthys uncirostris</i>	3	3 (100)	1-21	10.0
Subtotal	625	372 (59.5)	1-21,510	677.1
Total	750	474 (63.2)	1-21,510	572.3

Supplementary Table S18. Infection status of *Clonorchis sinensis* metacercariae in fishes from Wi-cheon in Gunwi-gun, Gyeongsangbuk-do

Locality (Year) and fish sp.	No. of fish examined	No. (%) of fish infected	No. of CsMc detected	
			Range	Average
㉟-1. Wi-cheon (2011, 2013, 2014)				
<i>Pungtungia herzi</i>	72	72 (100)	6-31,250	2,011.0
<i>Squalidus japonicus coreanus</i>	24	24 (100)	13-8,460	1,088.0
<i>Squalidus gracilis majimae</i>	30	30 (100)	9-6,130	1,131.0
<i>Sarcocheilichthys variegatus</i>	19	19 (100)	13-2,730	704.0
<i>Pseudorasbora parva</i>	4	4 (100)	483-1,180	728.0
<i>Pseudogobio esocinus</i>	10	9 (90.0)	1-176	26.2
<i>Microphysogobio jeoni</i>	1	1 (100)	-	365.0
<i>Microphysogobio koeensis</i>	1	1 (100)	-	12.0
<i>Abbottina springeri</i>	2	2 (100)	44-51	48.0
<i>Carassius auratus</i>	17	1 (5.9)	-	1.0
<i>Acheilognathus koreensis</i>	40	40 (100)	1-184	29.2
<i>Acheilognathus yamatsutae</i>	41	28 (68.3)	1-136	20.8
<i>Acheilognathus rhombeus</i>	11	9 (81.8)	1-290	87.0
<i>Acheilognathus lanceolatus</i>	2	1 (50.0)	-	283.0
<i>Acheilognathus majusculus</i>	15	3 (20.0)	1-2	1.3
<i>Acanthorhodeus macropterus</i>	3	3 (100)	2-87	30.0
<i>Zacco platypus</i>	129	66 (51.2)	1-70	10.9
<i>Zacco temminckii</i>	75	2 (2.7)	1-2	1.5
Subtotal	496	315 (63.5)	1-31,250	716.0
㉟-2. Wi-cheon (2015-2017)				
<i>Pungtungia herzi</i>	97	97 (100)	22-9,870	1,208.0
<i>Squalidus japonicus coreanus</i>	50	50 (100)	4-2,750	1,254.0
<i>Squalidus gracilis majimae</i>	13	13 (100)	146-7,680	2,891.0
<i>Sarcocheilichthys variegatus</i>	6	6 (100)	156-1,318	399.0
<i>Pseudorasbora parva</i>	8	8 (100)	365-2,225	850.0
<i>Pseudogobio esocinus</i>	3	3 (100)	36-504	622.0
<i>Hemibarbus longirostris</i>	1	1 (100)	-	13.0
<i>Microphysogobio koeensis</i>	2	2 (100)	40-139	89.5
<i>Abbottina springeri</i>	4	4 (100)	10-80	39.0
<i>Carassius auratus</i>	17	2 (11.8)	-	1.0
<i>Acheilognathus koreensis</i>	90	82 (91.1)	1-678	42.1
<i>Acheilognathus yamatsutae</i>	58	27 (46.6)	1-28	4.0
<i>Acheilognathus rhombeus</i>	24	23 (95.8)	1-329	178.0
<i>Acheilognathus lanceolatus</i>	4	4 (100)	4-255	143.0
<i>Acanthorhodeus gracilis</i>	5	5 (100)	2-12	5.0
<i>Acanthorhodeus macropterus</i>	1	1 (100)	-	79.0
<i>Zacco platypus</i>	130	73 (56.2)	1-420	20.6
<i>Zacco temminckii</i>	59	4 (6.8)	1-4	2.0
<i>Opsariichthys uncirostris</i>	3	2 (66.7)	-	1.0
<i>Rhynchocypris oxycephalus</i>	1	1 (100)	-	28.0
Subtotal	576	408 (70.8)	1-9,870	585.0

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Supplementary Table S18. Continued

Locality (Year) and fish sp.	No. of fish examined	No. (%) of fish infected	No. of CsMc detected	
			Range	Average
㉓-3. Wi-cheon (2018-2020)				
<i>Pungtungia herzi</i>	105	105 (100)	3-4,280	236.0
<i>Squalidus japonicus coreanus</i>	43	43 (100)	2-200	42.6
<i>Squalidus gracilis majimae</i>	10	10 (100)	43-2,216	449.0
<i>Squalidus chankaensis</i>	46	46 (100)	14-7,250	549.0
<i>Sarcocheilichthys nigripinnis</i>	4	4 (100)	64-732	299.0
<i>Sarcocheilichthys variegatus</i>	11	11 (100)	3-887	238.0
<i>Pseudorasbora parva</i>	4	3 (75.0)	1-1,148	391.0
<i>Pseudogobio esocinus</i>	13	12 (92.3)	5-273	101.0
<i>Hemibarbus longirostris</i>	8	6 (75.0)	2-10	3.8
<i>Hemibarbus labeo</i>	1	1 (100)	-	9.0
<i>Microphysogobio koreensis</i>	7	6 (85.7)	7.3	7.3
<i>Ladislabia taczanowskii</i>	1	1 (100)	-	121.0
<i>Carassius auratus</i>	60	1 (1.7)	-	8.0
<i>Acheilognathus rhombeus</i>	77	68 (88.3)	1-311	31.0
<i>Acheilognathus koreensis</i>	67	59 (88.1)	1-69	12.0
<i>Acheilognathus yamatsutae</i>	19	5 (26.3)	1-9	3.2
<i>Acheilognathus lanceolatus</i>	4	1 (25.0)	-	1.0
<i>Acanthorhodeus gracilis</i>	1	1 (100)	-	15.0
<i>Rhodeus pseudosericeus</i>	1	1 (100)	-	72.0
<i>Zacco platypus</i>	123	56 (45.5)	1-91	7.0
<i>Zacco koreanus</i>	104	4 (3.8)	1-3	1.5
<i>Opsariichthys uncirostris</i>	2	1 (50.0)	-	1.0
<i>Rhynchocypris oxycephalus</i>	4	4 (100)	1-402	129.0
Subtotal	715	449 (62.8)	1-7,250	148.0
Total	1,787	1,172 (65.6)	1-31,250	453.0

Supplementary Table S19. Infection status of *Clonorchis sinensis* metacercariae in cyprinid fish from Yang-cheon in Sancheong-gun, Gyeongsangnam-do

Locality (Year) and fish sp.	No. of fish examined	No. (%) of fish infected	No. of CsMc detected	
			Range	Average
④-1. Yang-cheon (2011-2014)				
<i>Pungtungia herzi</i>	408	407 (99.8)	1-1,157	151.5
<i>Squalidus japonicus coreanus</i>	67	67 (100)	1-195	51.6
<i>Squalidus gracilis majimae</i>	1	1 (100)	-	7.0
<i>Squalidus chankaensis</i>	69	69 (100)	7-322	66.3
<i>Sarcocheilichthys nigripinnis</i>	13	13 (100)	7-795	152.5
<i>Sarcocheilichthys variegatus</i>	14	14 (100)	2-530	169.6
<i>Pseudogobio esocinus</i>	40	38 (95.0)	1-167	25.2
<i>Hemibarbus longirostris</i>	66	32 (48.5)	1-13	2.2
<i>Hemibarbus labeo</i>	1	1 (100)	-	6.0
<i>Acheilognathus majusculus</i>	133	52 (39.1)	1-12	2.8
<i>Acheilognathus koreensis</i>	44	34 (77.3)	1-20	4.8
<i>Acheilognathus yamatsutae</i>	11	6 (54.5)	1-7	2.7
<i>Acheilognathus rhombeus</i>	8	5 (62.5)	1-5	2.6
<i>Acanthorhodeus gracilis</i>	20	3 (15.0)	-	1.0
<i>Acanthorhodeus macropterus</i>	25	4 (16.0)	-	1.0
<i>Zacco platypus</i>	125	33 (26.4)	1-13	2.5
<i>Zacco temminckii</i>	63	3 (4.8)	1-2	1.3
<i>Zacco koreanus</i>	134	3 (2.2)	-	1.0
Subtotal	1,242	785 (63.2)	1-1,157	96.2
④-1. Yang-cheon (2015-2017)				
<i>Pungtungia herzi</i>	138	137 (99.3)	6-451	141.0
<i>Squalidus japonicus coreanus</i>	37	37 (100)	15-364	129.4
<i>Squalidus gracilis majimae</i>	6	6 (100)	32-195	86.7
<i>Sarcocheilichthys nigripinnis</i>	2	2 (100)	-	172.0
<i>Sarcocheilichthys variegatus</i>	12	12 (100)	42-362	221.6
<i>Pseudogobio esocinus</i>	36	36 (100)	1-124	35.0
<i>Hemibarbus longirostris</i>	41	14 (34.1)	1-8	2.6
<i>Hemibarbus labeo</i>	14	11 (78.6)	1-6	2.4
<i>Acheilognathus majusculus</i>	99	50 (50.5)	1-16	2.6
<i>Acheilognathus koreensis</i>	54	36 (66.7)	1-9	2.7
<i>Acheilognathus yamatsutae</i>	78	54 (69.2)	1-12	2.9
<i>Acheilognathus rhombeus</i>	34	31 (91.2)	1-51	18.7
<i>Acanthorhodeus gracilis</i>	41	36 (87.8)	1-59	17.1
<i>Acanthorhodeus macropterus</i>	6	4 (66.7)	4-7	5.5
<i>Zacco platypus</i>	137	41 (14.8)	1-10	2.5
<i>Zacco temminckii</i>	111	1 (0.9)	-	1.0
Subtotal	846	508 (60.0)	1-451	60.3
Total	2,088	1,293 (61.9)	1-1,157	82.1

Supplementary Table S20. Infection status of *Clonorchis sinensis* metacercariae in cyprinid fish from the water systems of Nakdong-gang in Gyeongsangnam-do, Korea

Locality (Year) and fish sp.	No. of fish examined	No. (%) of fish infected	No. of CsMc detected	
			Range	Average
④ Deokcheon-gang in Sancheong-gun (2018-2020)				
<i>Pungtungia herzi</i>	123	79 (64.2)	1-208	37.0
<i>Squalidus japonicus coreanus</i>	25	13 (52.0)	1-76	19.2
<i>Squalidus gracilis majimae</i>	101	71 (70.3)	1-185	31.0
<i>Squalidus chankaensis</i>	20	18 (90.0)	2-160	34.1
<i>Pseudorasbora parva</i>	7	2 (28.6)	16-28	22.0
<i>Pseudogobio esocinus</i>	14	10 (71.4)	1-62	18.2
<i>Microphysogobio koeensis</i>	28	3 (10.7)	2-3	2.7
<i>Coreoleuciscus splendidus</i>	1	1 (100)	-	1.0
<i>Acheilognathus koreensis</i>	147	29 (19.7)	1-8	2.3
<i>Zacco koreanus</i>	118	2 (1.7)	1-2	1.5
Subtotal	584	228 (39.0)	1-208	27.6
④ Jisu-cheon and Haman-cheon in Jinju-si and Haman-gun (2015)				
<i>Pungtungia herzi</i>	1	1 (100)	-	9.0
<i>Squalidus gracilis majimae</i>	12	1 (8.3)	-	22.0
<i>Squalidus chankaensis</i>	1	1 (100)	-	101.0
<i>Pseudogobio esocinus</i>	12	1 (8.3)	-	4.0
<i>Hemibarbus labeo</i>	2	1 (50.0)	-	1.0
<i>Acheilognathus lanceolatus</i>	4	1 (25.0)	-	1.0
<i>Acanthorhodeus macropterus</i>	21	5 (23.8)	-	1.0
<i>Zacco platypus</i>	44	14 (31.8)	1-6	1.8
<i>Opsariichthys uncirostris</i>	27	1 (3.7)	-	1.0
Subtotal	124	26 (21.0)	1-101	6.5
Total	708	254 (35.9)	1-208	25.4

Supplementary Table S21. Infection status of *Clonorchis sinensis* metacercariae in cyprinid fish from the water systems of Hyungsan-gang and Taehwa-gang in Korea

Locality (Year) and fish sp.	No. of fish examined	No. (%) of fish infected	No. of CsMc detected	
			Range	Average
④ Gigye-cheon in Gyeongju-si, Gyeongsangbuk-do (2015)				
<i>Pungtungia herzi</i>	18	13 (72.2)	1-28	5.2
④ Cheokgwa-cheon and Taehwa-gang in Ulsan Metropolitan City (2015)				
<i>Pungtungia herzi</i>	48	37 (77.1)	1-150	28.8
<i>Squalidus gracilis majimae</i>	1	1 (100)	-	7.0
<i>Acheilognathus rhombeus</i>	20	11 (55.0)	1-24	5.4
<i>Acanthorhodeus gracilis</i>	17	9 (52.9)	1-18	9.2
<i>Zacco platypus</i>	29	4 (13.8)	1-3	1.8
<i>Rhynchocypris oxycephalus</i>	21	11 (52.4)	1-17	5.2
Subtotal	136	73 (53.7)	1-150	17.5
Total	154	86 (55.8)	1-150	15.7