

Table S2 Fish incidence distributional data of 28 oxbow lakes in the Ishikari River basin in the 2010s

Species	Origin	Tanba	Takonokubi	Ikenomae	Shisun	Fukuroji	Shimotoppu	Pira	Toi	Mizuho	Urausu	Shin	Higashi	Nishi	Hishi	Ito
<i>Lethenteron camtschaticum</i>	Native	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
<i>Cyprinus carpio</i>	Non-native	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1
<i>Carassius cuvieri</i>	Non-native	0	0	1	1	1	1	1	1	0	1	1	1	1	1	1
<i>Carassius auratus</i>	Native	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0
<i>Carassius langsdorfii</i>	Native	1	0	1	1	1	1	1	1	1	1	1	1	0	1	0
<i>Rhodeus ocellatus</i>	Non-native	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
<i>Ctenopharyngodon idella</i>	Non-native	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
<i>Rhynchocypris sachalinensis</i>	Native	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0
<i>Pseudaspius brandtii</i>	Native	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
<i>Pseudaspius sachalinensis</i>	Native	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1
<i>Pseudaspius hakonensis</i>	Native	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Pseudorasbora parva</i>	Non-native	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Gnathopogon elongatus</i>	Non-native	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1
<i>Misgurnus anguillicaudatus</i>	Non-native	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
<i>Barbatula barbatula</i>	Native	1	1	1	1	0	1	0	0	1	0	1	1	0	0	0
<i>Lefua nikkonis</i>	Native	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0
<i>Silurus asotus</i>	Non-native	0	0	0	0	1	1	0	1	1	1	1	1	1	1	1
<i>Hypomesus nipponensis</i>	Native	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
<i>Hypomesus olidus</i>	Native	0	0	1	0	1	1	1	1	0	0	1	1	1	1	1
<i>Oncorhynchus masou</i>	Native	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
<i>Gasterosteus aculeatus</i>	Native	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Pungitius tymensis</i>	Native	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Pungitius sinensis</i>	Native	1	1	0	1	1	1	1	0	0	1	1	1	0	0	0
<i>Gymnogobius urotaenia</i>	Native	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1
<i>Rhinogobius kurodai</i>	Native	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1
<i>Tridentiger brevispinis</i>	Native	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Channa argus</i>	Non-native	0	0	0	1	1	1	1	0	0	1	1	0	1	1	0

Table S2 Fish incidence distributional data of 28 oxbow lakes in the Ishikari River basin in the 2010s (continued)

Species	Origin	Sakura	Omagari	Miyajima	Sankaku	Tsukio	Tsukiko	Kagami	Bibai	Onuma	Tomoenojyo	Echigo	Kyutoyohira	Shinotsugawa
<i>Lethenteron camtschaticum</i>	Native	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cyprinus carpio</i>	Non-native	0	1	0	0	0	1	0	1	0	1	0	1	1
<i>Carassius cuvieri</i>	Non-native	1	1	1	0	1	1	0	1	0	1	0	1	1
<i>Carassius auratus</i>	Native	1	0	0	1	1	1	1	0	1	0	1	0	0
<i>Carassius langsdorfii</i>	Native	1	0	1	0	0	1	0	1	0	0	1	0	0
<i>Rhodeus ocellatus</i>	Non-native	1	1	1	0	0	1	0	1	1	1	1	1	1
<i>Ctenopharyngodon idella</i>	Non-native	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Rhynchocypris sachalinensis</i>	Native	1	0	0	1	1	1	1	0	1	0	1	0	0
<i>Pseudaspius brandtii</i>	Native	0	0	0	0	0	1	0	0	0	0	0	0	0
<i>Pseudaspius sachalinensis</i>	Native	0	1	0	0	0	1	0	0	1	0	0	1	0
<i>Pseudaspius hakonensis</i>	Native	0	1	1	0	0	0	0	1	1	1	0	1	1
<i>Pseudorasbora parva</i>	Non-native	1	1	1	1	1	1	0	1	1	1	1	1	1
<i>Gnathopogon elongatus</i>	Non-native	0	0	1	0	0	1	0	1	0	1	0	0	1
<i>Misgurnus anguillicaudatus</i>	Non-native	1	0	0	0	0	0	0	1	0	0	0	0	0
<i>Barbatula barbatula</i>	Native	0	1	0	0	0	0	0	0	0	0	0	0	0
<i>Lefua nikkonis</i>	Native	1	0	0	0	0	0	0	0	0	0	0	0	0
<i>Silurus asotus</i>	Non-native	0	1	0	0	0	0	0	0	0	1	0	0	1
<i>Hypomesus nipponensis</i>	Native	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Hypomesus olidus</i>	Native	1	1	1	0	1	1	0	0	0	1	1	0	1
<i>Oncorhynchus masou</i>	Native	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gasterosteus aculeatus</i>	Native	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Pungitius tymensis</i>	Native	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Pungitius sinensis</i>	Native	1	0	0	1	1	1	1	0	1	0	1	0	0
<i>Gymnogobius urotaenia</i>	Native	0	1	1	0	1	1	0	1	1	1	1	0	1
<i>Rhinogobius kurodai</i>	Native	0	1	0	0	1	1	0	1	0	1	0	0	0
<i>Tridentiger brevispinis</i>	Native	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Channa argus</i>	Non-native	1	1	0	0	0	0	0	1	0	0	0	1	0