Table S7. Accession numbers of collagen subunit protein sequences and water ecotypes of 33 fish species

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| Species | Common name | Accession No. of Col4a5 | Accession No. of Col8a1 | Water ecotypes |
| *Lepisosteus oculatusa* | Spotted gar | XP\_015206871.1 | ENSLOCP00000011536.1 | Freshwater; brackish |
| *Danio rerioa* | Zebrafish | XP\_005166559.1 | XP\_690914.3 | Freshwater |
| *Gasterosteus aculeatusa* | Three-spined stickleback |  | ENSGACP00000003642.1 | Marine; freshwater; brackish |
| *Oryzias latipesa* | Japanese rice fish, Medaka | XP\_011485964.1 | XP\_004081516.1 | Freshwater; brackish |
| *Takifugu rubripesa* | Japanese pufferfish | XP\_011604935.1 | XP\_003961858.1 | Marine; freshwater; brackish |
| *Ctenopharyngodon idellaa* | Grass carp |  | CI01000015\_06858948\_06861652 | Freshwater |
| *Scleropages formosus* | Asian arowana |  | XP\_018605480.1 | Freshwater |
| *Larimichthys crocea* | Large yellow croaker | XP\_019116036.1 | XP\_010751166.2 | marine |
| *Oryzias melastigma* | Marine medaka | XP\_024143783.1 | XP\_024142958.1 | Freshwater; brackish |
| *Oreochromis niloticusa* | Nile tilapia | XP\_005464118.1 | XP\_005475554.1 | Freshwater; brackish |
| *Cynoglossus semilaevis* | Tongue sole | XP\_024918491.1 | XP\_008326417.1 | Marine; freshwater; brackish |
| *Gadus morhuaa* | Atlantic cod |  | ENSGMOP00000017893.1 | Marine; brackish |
| *Clupea harengus* | Atlantic herring |  | XP\_012692753.1 | Marine; brackish |
| *Salmo salara* | Atlantic salmon | XP\_014062615.1 | XP\_014029720.1 | Marine; freshwater; brackish |
| *Oncorhynchus kisutch* | Coho salmon |  | XP\_020355464.1 | Marine; freshwater; brackish |
| *Sinocyclocheilus grahamia* | Sg, Golden-line barbel | XP\_016096442.1 | XP\_016113463.1 | Freshwater |
| *Sinocyclocheilus anshuiensisa* | Sa, Golden-line barbel | XP\_016336831.1 | XP\_016315123.1 | Freshwater |
| *Sinocyclocheilus rhinocerousa* | Sr, Golden-line barbel | XP\_016372043.1 | XP\_016383547.1 | Freshwater |
| *Ictalurus punctatus* | Channel catfish | XP\_017326951.1 |  | Freshwater |
| *Astyanax mexicanusa* | Mexican tetra | XP\_022534175.1 |  | Freshwater |
| *Hippocampus comes* | Tiger tail seahorse | XP\_019711649.1 | XP\_019749992.1 | Marine |
| *Paralichthys olivaceus* | Bastard halibut, Olive flounder | XP\_019961846.1 | XP\_019956235.1 | Marine |
| *Oncorhynchus mykiss* | Rainbow trout | XP\_021433329.1 |  | Marine; freshwater; brackish |
| *Monopterus albus* | Asian swamp eel | XP\_020479362.1 | XP\_020465181.1 | Freshwater; brackish |
| *Labrus bergylta* | Ballan wrasse |  | XP\_020506896.1 | Marine |
| *Acanthochromis polyacanthus* | Spiny chromis damselfish | XP\_022057858.1 | XP\_022077904.1 | Marine |
| *Stegastes partitus* | Bicolor damselfish |  | XP\_008299579.1 | marine |
| *Xiphophorus maculatusa* | Southern platyfish, moonfish | XP\_023201800.1 | XP\_023192266.1 | Freshwater |
| *Fundulus heteroclitus* | Mummichog | XP\_012730418.1 | XP\_021173149.1 | Marine; freshwater; brackish |
| *Periophthalmus magnuspinnatusa* | PM, Giant-fin mudskipper |  | Pm\_GLEAN\_10021965b | Marine; freshwater; brackish |
| *Boleophthalmus pectinirostrisa* | BP, Blue-spotted mudskipper | XP\_020778420.1 | XP\_020791982.1 | Marine; freshwater; brackish |
| *Seriola dumerili* | Greater amberjack | XP\_022617014.1 |  | Marine |
| *Lates calcarifer* | Barramundi | XP\_018559310.1 |  | Marine; freshwater; brackish |

**a** Species employed in our previous *in situ* mapping analysis. **b** Sequence identified in our local protein dataset.