

Taxonomy	Order/series	Family	Valid binomial	Outdated binomial	Bone type (skeletal bone)	Bone type (scales)	Notes	Reference(s)
Actinopterygii								
<i>Incertae sedis</i>	<i>Incertae sedis</i>	<i>Incertae sedis</i>	† <i>Birgeria stenssei</i> † <i>Birgeria groenlandica</i> † <i>Eurypterus crinitus</i> † <i>Mimipiscis toompsi</i> † <i>Mimia toompsi</i>		cellular	cellular		this study Orvig, 1978 Goodrich, 1907; Schultz, 2016 Richter & Smith, 1995 Sire et al., 2009; Schultz, 2016 Goodrich, 1907; Sire et al., 2009; Zylberberg et al., 2016; Meunier et al. 2018a; this study
Cladista	†Cheirolepidiformes Polypteriformes	†Cheirolepididae Polypteridae	† <i>Cheiropterus canadensis</i> † <i>Banitius sp.</i> † <i>Dipturus sudamericana</i> <i>Erettoichthys californicus</i> Calamoichthys sp. † <i>Pollia uaregi</i> <i>Paloptera bichir</i> <i>Paloptera delbezii</i> <i>Palopterus ornatuspinis</i> <i>Palopterus sengalus</i> <i>Palopterus sp.</i> † <i>Scamilepis sp.</i> † <i>Scamilepis dubia</i>		cellular	cellular		Richter & Smith, 1995 Sire et al., 2009; Schultz, 2016 Goodrich, 1907; Sire et al., 2009; Zylberberg et al., 2016; Meunier et al. 2018a; this study Meunier et al., 2016 Gayet & Meunier, 1992 Moss, 1961a; this study Meunier & Gayet, 1996 Kölliker, 1859; Stéphan, 1900; Goodrich, 1907; Orvig, 1978 this study Totland et al., 2011 Sire et al., 2009 Moss, 1961a Sire et al., 2009 Orvig, 1978 Scheyer et al., 2014 this study Lepréost et al., 2017 Currey et al., 2013; this study Kölliker, 1859 Stéphan, 1900 Stéphan, 1900 Buffrénil et al., 2016 Kölliker, 1859 Kölliker, 1859
Chondrostei	†Saurichthyiformes †Chondrosteiformes Acipenseriformes	†Saurichthyidae †Chondrosteidae Acipenseridae	† <i>Chondrostes acipenserides</i> <i>Acipenser baeri</i> <i>Acipenser gueldenstaedtii</i> <i>Acipenser naccarii</i> <i>Acipenser ruthenus</i> <i>Acipenserstellatus</i> <i>Acipenser sturio</i> <i>Saphyrichthys platyrhynchus</i> <i>Polyodon spathula</i>		cellular	cellular		Sire et al., 2009 Orvig, 1978 Scheyer et al., 2014 this study Lepréost et al., 2017 Currey et al., 2013; this study Kölliker, 1859 Stéphan, 1900 Stéphan, 1900 Buffrénil et al., 2016 Kölliker, 1859 Kölliker, 1859
		Polyodontidae		<i>S. rafinesquii</i> <i>Spatularia folium</i>		cellular (dermal plate)		
Neopterygii								
Holostei	<i>Incertae sedis</i>	<i>Incertae sedis</i>	† <i>Gymnus sp.</i> † <i>Proscinetes elegans</i> † <i>Eoognathus megalepis</i> † <i>Heteropeltis dorsalis</i> † <i>Hulettia americana</i>		cellular	cellular		personal observation (NHMUK)
			† <i>Dapedium sp.</i>		cellular	cellular		this study
Amiiformes	†Dapediiformes	Amidae	<i>Amia atra</i> † <i>Amia robusta</i>		cellular	cellular		this study
Lepisosteiformes	†Caturidae <i>Incertae sedis</i>	†Caturidae Lepisosteidae	† <i>Caturus furatus</i> † <i>Adrianichthys pankowskii</i> <i>Atractosteus tristoechus</i> <i>Atractostomus triporcatus</i> <i>Lepisosteus oculatus</i> <i>Lepisosteus osseus</i> <i>Lepisosteus platostomus</i> <i>Lepisosteus platyrhincus</i> † <i>Nanolepisosteus mexicanus</i>		cellular	cellular		Kölliker, 1859; Stéphan, 1900; Moss, 1961a; Sire & Meunier, 1994; Sire et al., 2009; this study
			† <i>Obaichthys africanus</i> † <i>Obaichthys laevis</i> † <i>Obaichthys decoratus</i>		cellular	cellular		Meunier et al., 2016
			† <i>Epidoyle enigmatica</i> † <i>Semionotus elegans</i>		cellular	cellular		Meunier & Poplin, 1995
Stem-group Teleostei								
	†Aspidorhynchiformes	†Aspidorhynchidae	† <i>Aspidorhynchus acutirostris</i> † <i>Aspidorhynchus cf. eodius</i> † <i>Belonostomus tenuirostris</i>		cellular	cellular		Brito & Meunier, 2000; Meunier & Brito, 2004
	†Pachycormiformes	†Pachycormidae	† <i>Intifler comptoni</i> † <i>Euthynotus incognitus</i> † <i>Hypsoformus sp.</i>		cellular	cellular		Brito & Meunier, 2000; Meunier & Brito, 2004
	†Pholidophoriformes	<i>Incertae sedis</i>	† <i>Leadiichthys problematicus</i> † <i>Pachyformes macropterus</i> † <i>Pholidophoroides crenulatus</i> † <i>Pholidophoropsis canalis</i>		cellular	cellular		Brito & Meunier, 2000; Meunier & Brito, 2004
	†Dorsetichthyoformes	†Dorsetichthyoidea	† <i>Dorsetichthys beebei</i>		cellular	cellular		Brito & Meunier, 2000; Meunier & Brito, 2004
	†Leptolepidiformes	†Ankylophoridae	† <i>Ankylophoridiae macrocephalus</i>		cellular	cellular		Brito & Meunier, 2000; Meunier & Brito, 2004
	†Ichthyodectiformes	†Leptolepididae	† <i>Ascalaboidae rothii</i> † <i>Tharsis dubius</i> † <i>Leptolepis macropthalmus</i>		cellular	cellular		Brito & Meunier, 2000; Meunier & Brito, 2004
		<i>Incertae sedis</i>	† <i>Allodipterops regleyi</i> † <i>Pachythrissops laevis</i> † <i>Thriops formosus</i>		cellular	cellular		Brito & Meunier, 2000; Meunier & Brito, 2004
			† <i>Ichthyodectidae cf. atendron</i> † <i>Xiphactinus cf. andreae</i>		cellular	cellular		Brito & Meunier, 2000; Meunier & Brito, 2004
Teleostei								
<i>Incertae sedis</i>	<i>Incertae sedis</i>	<i>Incertae sedis</i>	† <i>Kribianichthys verrassi</i> † <i>Rhaodolipis buccalis</i> † <i>Rhaodolipis sp.</i>		cellular	cellular		Mayrinck et al., 2017
†Crossognathiformes	†Crossognathidae					cellular		this study
								personal observation (NHMUK); this study

Elasmobranchii	†Tselfatiiformes	†Plethodidae	† <i>Platodus expansus</i>	cellular	personal observation (NHMUK)
	Incertae sedis	Incertae sedis	† <i>Omerouridae</i> sp.	cellular	personal observation (NHMUK); this study
	Albuliformes	Albulidae	<i>Alluda rufofasciata</i>	mixed	Moss, 1961a
			<i>Alluda rufofasciata</i>	cellular	Kölliker, 1859; this study
			<i>Alluda rufofasciata</i>	cellular	personal observation (NHMUK)
			† <i>Lamprichthys gracilis</i>	cellular	this study
Elopiformes	Pterothriidae	† <i>Istius grandis</i>	† <i>Istius grandis</i>	cellular	this study
	Incertae sedis	† <i>Ichthyemidion ridali</i>	† <i>Ichthyemidion ridali</i>	cellular	this study
	Elopidae	† <i>Anaelatichthys angustus</i>	† <i>Anaelatichthys angustus</i>	cellular	this study
		† <i>Darwiniichthys gardineri</i>	† <i>Darwiniichthys gardineri</i>	cellular	this study
		<i>Elops saurus</i>	<i>Elops saurus</i>	cellular	Kölliker, 1859; this study
		<i>Elops</i> sp.	<i>Elops</i> sp.	cellular	personal observation (NHMUK)
	Megalopidae	† <i>Fidderichthys denmaedi</i>	† <i>Fidderichthys denmaedi</i>	cellular	this study
		<i>Megalops atlanticus</i>	<i>Megalops atlanticus</i>	cellular	Meunier & Brito, 2004; personal observation (NHMUK)
		<i>Megalops cyprinoides</i>	<i>Megalops cyprinoides</i>	cellular	Kölliker, 1859; this study
Anguilliformes	Incertae sedis	† <i>Echeluridae</i> sp.	† <i>Echeluridae</i> sp.	cellular	personal observation (NHMUK)
		† <i>Urenchelys germanus</i>	† <i>Urenchelys germanus</i>	cellular	this study
	Anguillidae	<i>Anguilla anguilla</i>	<i>A. vulgaris</i>	cellular	Kölliker, 1859; Stéphan, 1900; Lopez, 1970; Meunier, 1984, 2008; Rolvien et al., 2016; this study
		<i>Anguilla notrata</i>	<i>Anguilla notrata</i>	cellular	Moss, 1965
	Congridae	<i>Aronoma</i> sp. (lara)	<i>Helminthobranchus punctatus</i>	acellular	Kölliker, 1859
		<i>Conger conger</i>	<i>Conger conger</i> (lara)	acellular	this study
		Leptocephalus larva	Leptocephalus larva	leptocephalus larva	Kölliker, 1859
	Muraenesocidae	<i>Muraenesox cinereus</i>	<i>Muraenesox cinereus</i>	acellular	Kölliker, 1859
	Muraenidae	<i>Gymnothorax moringa</i>	<i>Gymnothorax moringa</i>	acellular	this study
		<i>Gymnothorax moringa</i>	<i>Gymnothorax moringa</i>	acellular	Moss, 1961a
		<i>Muraena helena</i>	<i>Muraena helena</i>	acellular	this study
	Nemichthidae	? <i>Nemichthysidae</i> sp. (lara)	<i>Oxystomus hyalinus</i>	acellular	Kölliker, 1859
	Notostomiidae	<i>Netastoma melanurum</i> (lara)	<i>Hyporhinus messanensis</i>	acellular	Kölliker, 1859
		<i>Netastoma melanurum</i>	<i>Netastoma melanurum</i>	acellular	Kölliker, 1859
Osteoglossomorpha	Hiodontiformes	Ophichthidae	<i>Dolichophis imberbis</i>	ellular	Kölliker, 1859
	Hiodontidae	† <i>Echidon falcatus</i>	† <i>Echidon falcatus</i>	ellular	this study
		<i>Hiodon alosoides</i>	<i>Hiodon alosoides</i>	acellular	Moss, 1965
		<i>Hiodon alosoides</i>	<i>Hiodon alosoides</i>	acellular	Kölliker, 1859; this study
		<i>Hiodon tergisus</i>	<i>Hiodon tergisus</i>	acellular	Moss, 1965
		<i>Hiodon tergisus</i>	<i>Hiodon tergisus</i>	acellular	this study
Osteoglossiformes	Incertae sedis	† <i>Palaeonotopterus greenwoodi</i>	† <i>Palaeonotopterus greenwoodi</i>	acellular	Meunier et al., 2013a
	Notopteridae	<i>Chitala chitala</i>	<i>Chitala chitala</i>	acellular	this study
		<i>Notopterus notopterus</i>	<i>N. pallasi</i>	acellular	Kölliker, 1859; Moss, 1965
	Mormyridae	<i>Hyperoplus bebe</i>	<i>Mormyrus cyprinoides</i>	acellular	Meunier et al., 2018b
		<i>Marcusenius cyprinoides</i>	<i>Mormyrus cyprinoides</i>	acellular	Kölliker, 1859
		<i>Mormyrus anguilloides</i>	<i>Mormyrus anguilloides</i>	acellular	Kölliker, 1859
		<i>Mormyrus caschire</i>	<i>M. longipinnis</i>	acellular	Kölliker, 1859
		<i>Mormyrus kannume</i>	<i>M. oxyrynchus</i>	acellular	Kölliker, 1859
		<i>Mormyrus</i> sp.	<i>Mormyrus</i> sp.	acellular	Kölliker, 1859
	Osteoglossidae	<i>Ptenopelmas bane</i>	<i>Mormyrus bane</i>	acellular	Kölliker, 1859
		<i>Arapaima gigas</i>	<i>Arapaima gigas</i>	acellular	Kölliker, 1859; Moss, 1961a; Meunier & Brito, 2004; Meunier et al., 2013b; Buffrénil et al., 2016; this study
		† <i>Bryconetus muelleri</i>	† <i>Bryconetus muelleri</i>	acellular	this study
		<i>Heros notatus</i>	<i>Heros notatus</i>	acellular	Kölliker, 1859
		† <i>Loricariichthys ancestralis</i>	† <i>Loricariichthys ancestralis</i>	acellular	Meunier & Brito, 2004; Meunier et al., 2013b; Buffrénil et al., 2016
		<i>Osteoglossum bicirrhosum</i>	<i>O. randalli</i>	acellular	Kölliker, 1859; Meunier & Brito, 2004; this study
		† <i>Phareodus encaustus</i>	† <i>Phareodus encaustus</i>	acellular	this study
		<i>Scleropages formosus</i>	<i>Scleropages formosus</i>	acellular	Kölliker, 1859
Clupeomorpha	†Ellimmichthyoformes	†Armigatidae	† <i>Armagatus namourensis</i>	acellular	this study
		†Ellimmichthyoformes	† <i>Ellimmichthys longirostratus</i>	acellular	this study
Clupeiformes	Incertae sedis	† <i>Kaigitea</i> sp.	† <i>Kaigitea</i> sp.	acellular	this study
	Chirocentridae	<i>Chironemus dorab</i>	<i>Chironemus dorab</i>	acellular	Kölliker, 1859; this study
	Clupeidae	<i>Alosa agone</i>	<i>A. finta</i>	acellular	Stéphan, 1900
		<i>Alosa alosa</i>	<i>A. vulgaris</i>	acellular	Kölliker, 1859
		<i>Alosa capia</i>	<i>Alosa capia</i>	acellular	Moss, 1965
		<i>Alosa chryschlora</i>	<i>Alosa chryschlora</i>	acellular	Moss, 1965
		<i>Alosa pseudoharengus</i>	<i>Alosa pseudoharengus</i>	acellular	Moss, 1965; this study
		<i>Alosa sapidissima</i>	<i>Alosa sapidissima</i>	acellular	Moss, 1961a
		<i>Alosa sapidissima</i>	<i>Alosa sapidissima</i>	acellular	Moss, 1965
		<i>Brama rutila</i>	<i>Brama rutila</i>	acellular	Moss, 1961a
		<i>Clupea harengus</i>	<i>Clupea harengus</i>	acellular	Kölliker, 1859; Moss, 1965; Meunier & Brito, 2004
		<i>Dorosoma cepedianum</i>	<i>Chatoessus cepedianus</i>	acellular	Kölliker, 1859; Moss, 1965
		<i>Dorosoma petenense</i>	<i>Dorosoma petenense</i>	acellular	Moss, 1965
		<i>Jenkinia lampretana</i>	<i>Jenkinia lampretana</i>	acellular	Moss, 1961a
		<i>Koiosurus punctatus</i>	<i>Chatosessus punctatus</i>	acellular	Kölliker, 1859
		<i>Opisthonema oglinum</i>	<i>Opisthonema oglinum</i>	acellular	Kölliker, 1859
		<i>Sardinella crassus</i>	<i>Sardinella crassus</i>	acellular	Gaudant & Meunier, 1996
		<i>Sardinella melanura</i>	<i>Sardinella melanura</i>	acellular	Kölliker, 1859
		<i>Sardinops sagax</i>	<i>Sardinops sagax</i>	acellular	this study
	Engraulidae	<i>Anchoa hepsetus</i>	<i>Engraulis brownii</i>	acellular	Kölliker, 1859

		<i>Anborella</i> sp.	acellular		Moss, 1961a
		<i>Catilus grayii</i>	cellular		Kölliker, 1859
		<i>Catilus</i> sp.	cellular		personal observation (NHMUK)
		<i>Engraulis encrasicolus</i>	cellular		Kölliker, 1859
	Pristigasteridae	<i>Odonotognathus micronotatus</i>	<i>Gnathobulus micronotatus</i>	cellular	Kölliker, 1859
Ostariophysi	Alepocephaliformes	<i>Pellona</i> sp.	<i>Gnathobulus micronotatus</i>	acellular	personal observation (NHMUK)
	Gonorynchiformes	<i>Pristigaster</i> sp.		acellular	Kölliker, 1859
		<i>Alepocephalus rostratus</i>	cellular		Kölliker, 1859
		<i>Clarias chano</i>	<i>Lutodeira chano</i>	cellular	Kölliker, 1859
		<i>†Tharrias araripes</i>	cellular		this study
		<i>Gonorhynchus</i> sp.			personal observation (NHMUK)
	Cypriniformes	<i>Catostomidae</i>	<i>Catostomus catostomus</i>	cellular	Moss, 1965
		<i>Catostomus columbianus</i>	cellular		Moss, 1965
		<i>Catostomus commersonii</i>	cellular		Moss, 1965; this study
		<i>Catostomus platyrhynchus</i>	<i>Pantosteus delphinus</i>	cellular	Moss, 1965
		<i>Catostomus plebeius</i>	<i>Pantosteus plebeius</i>	cellular	Moss, 1965
		<i>Catostomus</i> sp.			Kölliker, 1859
		<i>Cyclopterus elongatus</i>	cellular		Moss, 1965
		<i>Erimyzon oblongus</i>	cellular		Moss, 1965
		<i>Erimyzon suetta</i>	<i>E. sinicetta kennedii</i>	cellular	Moss, 1965
		<i>Hypseleotrum nigricans</i>	cellular		Moss, 1965
		<i>Ictiobus cyprinellus</i>	? <i>Megartomatobus cyprinella</i>	cellular	Moss, 1965
		<i>Ictiobus niger</i>	cellular		Moss, 1965
		<i>Mecostoma erythrurum</i>	cellular		Moss, 1965
		<i>Mecostoma macrolepidotum</i>	<i>M. auroustum</i>	cellular	Moss, 1965
	Cobitidae	<i>Ctenopharyngodon idellus</i>	<i>Botia macracantha</i>	cellular	Moss, 1961a
		<i>Mugiloglanis anguillicaudatus</i>	cellular		Moss, 1965
		<i>Synbranchus hymenophrys</i>	<i>Botia hymenophysa</i>	cellular	Moss, 1965
	Cyprinidae	<i>Abramis brama</i>		cellular	this study
		<i>Alburnoides bipunctatus</i>	<i>Aspius bipunctatus</i>	cellular	Kölliker, 1859
		<i>Alburnus alburnus</i>	<i>A. lucidus</i>	cellular	Kölliker, 1859
		<i>Alburnus tinella</i>	<i>Leuciscus tinella</i>	cellular	Kölliker, 1859
		<i>Alestes salvaei</i>			Moss, 1965
		<i>Bleka bjerkeni</i>	<i>Abramis bleekeri</i>	cellular	Kölliker, 1859
		<i>Barbus barbus</i>	<i>Barbus everetti</i>	cellular	Moss, 1961a
		<i>Barbus barbus</i>	<i>B. vulgaris</i>	cellular	Kölliker, 1859; Meunier & Herbin, 2014
		<i>Carassius auratus</i>	<i>Cyprinus auratus</i>	cellular	Moss, 1965
		<i>Cyprinus carpio</i>			Stéphan, 1900; Moss, 1961a
		<i>Danio rerio</i>		cellular	Kölliker, 1859; Stéphan, 1900; Moss, 1961a; Meunier, 1984, 2008; Cohen et al., 2012; this study
		<i>Danio rerio</i>		mixed	Sire et al., 2009; Cao et al., 2011; Brunel & Witten, 2015
		<i>Gila atraria</i>		cellular	Weigelt & Franz-Odendaal, 2016
		<i>Gila nigrescens</i>		cellular	Moss, 1965
		<i>Gobio gobio</i>	<i>G. fluviatilis</i>	cellular	Moss, 1965
		<i>Hesperolebias symmeiricus</i>		cellular	Kölliker, 1859
		<i>Labo niloticus</i>		cellular	Moss, 1965
		<i>Labiobarbus intermedius</i>	<i>Barbus elongatus</i>	cellular	Moss, 1965
		<i>Labiobarbus ocellatus</i>	<i>Danigila ocellata</i>	cellular	Currey et al., 2017
		<i>Leuciscus apodus</i>	<i>Aspius aspius</i>	cellular	Moss, 1965
		<i>Leuciscus idus</i>		cellular	Moss, 1965
		<i>Leuciscus cornutus</i>	<i>Notropis cornutus frontalis</i>	cellular	Moss, 1965
		<i>Meda fulgida</i>		cellular	Moss, 1965
		<i>Mylophareton coniceps</i>		cellular	Moss, 1965
		<i>Mystacoleucus marginatus</i>	<i>Barbus marginatus, B. obtusirostris</i>	cellular	Moss, 1965
		<i>Nasomorpha microgon</i>	<i>Hyphessobrycon microgon</i>	cellular	Moss, 1961a; Moss, 1965
		<i>Notemigonus crysoleucas</i>		cellular	Moss, 1965
		<i>Notropis rotundatus</i>		cellular	Kölliker, 1859
		<i>Osteohilus microcephalus</i>	<i>Danigila lipochorda</i>	cellular	Moss, 1961a
		<i>Pethia conchonius</i>	<i>Barbus conchonius</i>	cellular	Moss, 1965
		<i>Pheroebius mirabilis</i>		cellular	Moss, 1965
		<i>Plocozonus plocozonus</i>	<i>P. laevis</i>	cellular	Kölliker, 1859
		<i>Pimephales promelas</i>		cellular	Moss, 1965
		<i>Platygobio gracilis</i>		cellular	Moss, 1965
		<i>Ptychocheilus grandis</i>		cellular	Moss, 1965
		<i>Rhodeus amarus</i>		cellular	Moss, 1965
		<i>Rhabdichthys atraatus</i>		cellular	Kölliker, 1859
		<i>Rutilus rutilus</i>		acellular	Moss, 1965
		<i>Rutilus rutilus</i>	<i>Leuciscus rutilus</i>	cellular	Moss, 1961a
		<i>Semotilus atromaculatus</i>		cellular	Kölliker, 1859
		<i>Semotilus corporalis</i>	<i>Leucosomus corporalis</i>	cellular	Moss, 1965
		<i>Siphateles bicolor</i>	<i>S. obsesus carnis</i>	cellular	Moss, 1965
		<i>Tambichthys ransonneti</i>	<i>Dionda ransonneti</i>	cellular	Moss, 1965
		<i>Tetralestes souffia</i>	<i>Clondrostoma risella</i>	cellular	Moss, 1965
		<i>Tinca tinca</i>	<i>T. chrysitis</i>	cellular	Kölliker, 1859
		<i>Tribolodon hakonensis</i>	<i>Achara hakonensis</i>	cellular	Moss, 1965; Meunier & Herbin, 2014; this study
		<i>Zacco platypus</i>		cellular	Moss, 1965
		<i>Barbatula barbatula</i>	<i>Nemacheilus barbatulus</i>	cellular	Kölliker, 1859; Moss, 1965
Characiformes	Nemacheilidae	<i>Alestes dentex</i>		cellular	Kölliker, 1859
	Alestidae	<i>Hydrocynus forskalii</i>	<i>Hydrocygnus forskalii</i>	cellular	Kölliker, 1859
					possibly an error

Anostomidae	<i>Leporinus</i> sp.	cellular	Kölliker, 1859
Bryconidae	<i>Brycon guatemalensis</i>	cellular	Moss, 1965
	<i>Brycon</i> sp.	cellular	Kölliker, 1859
Characidae	<i>Astyanax mexicanus</i>	cellular	Kölliker, 1859; Moss, 1965
	<i>Cleirodon</i> sp.	cellular	Kölliker, 1859
	<i>Hypseleotris compressus</i>	cellular	Moss, 1965
	<i>Roeboides boulengeri</i>	cellular	Moss, 1965
Chilonotidae	<i>Citharus punctatus</i>	cellular	Moss, 1961a
Citharinidae	<i>Citharinus citharus</i>	cellular	Kölliker, 1859
Ctenoluciidae	<i>Ctenolucius beani</i>	cellular	Moss, 1965
Curimatidae	? <i>Curimata cyprinoides</i>	cellular	Kölliker, 1859
	<i>Steindachnerina dolbula</i>	cellular	Moss, 1965
Cynodontidae	<i>Hydnodus sombreiroides</i>	cellular	this study
Distichodontidae	<i>Distichodus nefasc</i>	cellular	Kölliker, 1859
Erythrinidae	<i>Hoplopyrinus unitaeniatus</i>	cellular	Kölliker, 1859
	<i>Hoplias malabaricus</i>	cellular	Kölliker, 1859; Moss, 1965; this study
Gasteropelecidae	<i>Gasteropelecan sternalis</i>	cellular	Kölliker, 1859
Iguanodectidae	<i>Piauacu</i> sp.	cellular	Kölliker, 1859
Prochilodontidae	<i>Prochilodus nigricans</i>	cellular	Kölliker, 1859
	<i>Semaprochilodus taeniurus</i>	cellular	Kölliker, 1859
Serrasalmidae	<i>Myleus rhomboidalis</i>	cellular	Meunier et al., 2008
	<i>Myleus kneri</i>	cellular	Meunier et al., 2008
	<i>Serrasalmus spilopleura</i>	cellular	this study
Triportheidae	<i>Triportheus angulatus</i>	cellular	Moss, 1965
Ariidae	<i>Arius</i> sp.	cellular	Kölliker, 1859
	<i>Ariopsis felis</i>	cellular	this study
	<i>Catoprion melanopus</i>	cellular	Moss, 1965
	<i>Galeichthys feliceps</i>	cellular	this study
	<i>Saudea parkeri</i>	cellular	Meunier et al., 2008
	<i>Saudea proops</i>	cellular	Lecomte et al., 1989; Meunier et al., 2008
Aspredinidae	<i>Aspredo aspredo</i>	cellular	Kölliker, 1859
Auchenipteridae	<i>Pseudauchenipterus nodosus</i>	cellular	Kölliker, 1859
Bagridae	<i>Bagrus</i> sp.	cellular	Kölliker, 1859
Callichthyidae	<i>Callichthys</i> sp.	cellular	Kölliker, 1859
	<i>Corydoras aeneus</i>	cellular	Moss, 1961a; Sire & Meunier, 1993; Sire et al., 2009
	<i>Corydoras elegans</i>	cellular	Moss, 1961a
	<i>Corydoras jordani</i>	cellular	Moss, 1961a
	<i>Corydoras melanistius</i>	cellular	Sire & Meunier, 1993
	<i>Corydoras rabauti</i>	cellular	Moss, 1961a
	<i>Hoplosternum littorale</i>	cellular	Sire & Meunier, 1993; Meunier et al., 2002
Chacidae	<i>Megalechis thoracata</i>	cellular	Moss, 1961a
Clariidae	<i>Clarias chata</i>	cellular	Kölliker, 1859
	<i>Clarias anguillaris</i>	cellular	Kölliker, 1859
	<i>Clarias batrachus</i>	cellular	Moss, 1965
	<i>Clarias fuscus</i>	cellular	Kölliker, 1859
Claroteidae	<i>Chrysichthys</i> sp.	cellular	Moss, 1965
Doradidae	<i>Platydoras oestatus</i>	cellular	Sire & Meunier, 1993
Heptapteridae	<i>Pimelodella gracilis</i>	cellular	this study
	<i>Rhamdia guatemalensis</i>	cellular	Moss, 1965
	<i>Rhamdia parryi</i>	cellular	Moss, 1965
Heteropneustidae	<i>Heteropneutes fossilis</i>	cellular	Kölliker, 1859
Ictaluridae	<i>Americanus melas</i>	cellular	Meunier, 1984
	<i>Ictalurus punctatus</i>	cellular	Moss, 1965
	<i>Ictalurus</i> sp.	acellular	Moss, 1961a
	<i>Notarius flossus</i>	cellular	Moss, 1965
	<i>Polydactylus olivaceus</i>	cellular	Moss, 1965
Loricariidae	<i>Ancistrus</i> sp.	cellular	Moss, 1961a
	<i>Dayloricaria filamentosa</i>	cellular	Sire & Meunier, 1993
	<i>Harttia surinamensis</i>	cellular	Kölliker, 1859
	<i>Loricaria cataphracta</i>	cellular	Sire & Meunier, 1993
	<i>Loricaria parvula</i>	cellular	Moss, 1961a
	<i>Otocinclus</i> sp.	cellular	Sire & Meunier, 1993
	<i>Pterygophylichthys dijunctivittatus</i>	cellular	Moss, 1961a
Malapteruridae	<i>Malapterurus beninensis</i>	cellular	Kölliker, 1859
	<i>Malapterurus electricus</i>	cellular	Kölliker, 1859
Mochokidae	<i>Synodontis clarias</i>	cellular	Moss, 1965
	<i>Synodontis schall</i>	cellular	Stéphan, 1900
	<i>Synodontis serratus</i>	cellular	Kölliker, 1859
Pimelodidae	<i>Pimelodus</i> sp.	cellular	Kölliker, 1859
Plotosidae	<i>Plotosus caninus</i>	cellular	Kölliker, 1859
Schilbeidae	<i>Schilbe myrus</i>	cellular	Kölliker, 1859
Siluridae	<i>Kryptopterus bicirrhosus</i>	cellular	Kölliker, 1859; Moss, 1965
	<i>Silurus glanis</i>	cellular	Kölliker, 1859
Trichomycteridae	<i>Trichomycterus</i> sp.	acellular	this study
	<i>Trichomycterus punctulatus</i>	acellular	Kölliker, 1859
Apteronomidae	<i>Apteromitus albifrons</i>	cellular	Moss, 1961a
	<i>Apteromitus cuchillijo</i>	cellular	Moss, 1965
Gymnotidae	<i>Electrophorus electricus</i>	cellular	Kölliker, 1859

		<i>?Gymnotus</i> sp. <i>Gymnotus carapo</i> <i>Brachyhypopomus brevirostris</i>	<i>Carapus brachyurus</i> <i>Hypopomus brevirostris</i>	cellular cellular cellular	Kölliker, 1859 this study Moss, 1965
Euteleostei					
Argentiniformes	Argentinidae	<i>Argentina silus</i>		cellular	Kölliker, 1859; personal observation (NHMUK)
Galaxiiformes	Galaxiidae	<i>Galaxias truttaceus</i>		acellular	Kölliker, 1859
		<i>Galaxias vulgaris</i>		acellular	Moss, 1965
?Esociformes	Incertae sedis	† <i>Baumaturus intermedius</i>		acellular	Gaudant & Meunier, 2004
Esociformes	Esocidae	<i>Esox americanus</i>		acellular	Moss, 1961a
		<i>Esox lucius</i>		acellular	Williamson, 1851; Kölliker, 1859; Amprino & Godina, 1956; Moss, 1961a; Moss, 1965; Meunier, 1984; Meunier et al., 2008
		<i>Dallia pectoralis</i>		acellular	Moss, 1965
		<i>Umbrina krameri</i>		acellular	Kölliker, 1859
		<i>Umbrina lumi</i>		acellular	Moss, 1965
?Salmoniformes	Incertae sedis	† <i>Panodon elongatus</i>		cellular	this study
Salmoniformes	Salmonidae - Coregoninae	<i>Corygonus oxyrinchus</i>		cellular	Stéphan, 1900
		<i>Corygonus regalardi</i>		cellular	this study
		<i>Corygonus</i> sp.		acellular	personal observation (NHMUK)
		<i>Prosopium gemmifer</i>	<i>Leucichthys gemmifer</i>	cellular	Moss, 1965
		† <i>Prosopium praelitus</i>		cellular	this study
		<i>Prosopium williamsoni</i>		cellular	this study
		<i>Sinemus leucichthys</i>		cellular	this study
		<i>Onorhynchus darki</i>		cellular	this study
		† <i>Onorhynchus lacustris</i>		cellular	this study
		<i>Onorhynchus mykiss</i>	<i>Salmo gaardnerii viridens</i>	cellular	Moss, 1965; this study
		<i>Onorhynchus tshawytscha</i>		cellular	this study
		† <i>Paleolox. larsoni</i>		cellular	this study
		<i>Paralaelio perryi</i>		cellular	this study
		<i>Salmo salar</i>		cellular	Kölliker, 1859; Moss, 1965; Hughes et al., 1994; Witten & Hall, 2002; Totland et al., 2011; this study
		<i>Salmo trutta</i>	<i>S. fario</i>	cellular	Kölliker, 1859; Stéphan, 1900; this study
		<i>Salmo</i> sp.		acellular	personal observation (NHMUK)
		<i>Sarebdina confluentus</i>		cellular	this study
		<i>Sarebdina fontinalis</i>		cellular	Moss, 1961a; Moss, 1965; this study
		<i>Sarebdina namaycush</i>		cellular	this study
		<i>Thymallus thymallus</i>		cellular	this study
		<i>Thymallus</i> sp.		acellular	personal observation (NHMUK)
Stomiati	Osmeriformes	Osmeridae	<i>Omorus mordax</i>	acellular	Moss, 1961a
		<i>Hypomesus pretiosus</i>		acellular	Moss, 1965
		<i>Thaleichthys pacificus</i>		acellular	Moss, 1965
Stomiiformes	Gonostomatidae	<i>Gonostoma dentatum</i>		acellular	Kölliker, 1859
		<i>Vinciguerria poweriae</i>	<i>Ichthyoscopus poweriae</i>	acellular	Kölliker, 1859
		<i>Argyropelecus hemigymnus</i>		acellular	Kölliker, 1859
		<i>Benthosema panamensis</i>		acellular	Germain et al., in press
		<i>Chauliodus sloani</i>	<i>C. setimaculatus</i>	acellular	Kölliker, 1859
		<i>Synodus brasiliensis</i>	<i>S. barbatus</i>	acellular	Kölliker, 1859; Germain et al., in press
Neoteleostei					
Aulopiformes	Incertae sedis	† <i>Eurypholis</i> sp.		acellular	Davesne et al., 2018
	Aulopidae	<i>Aulopus filamentosus</i>	<i>Saurus lacerta</i>	acellular	Kölliker, 1859
		<i>Aulopus</i> sp.		acellular	personal observation (NHMUK)
		<i>Evermannella balbo</i>	<i>Odontostoma balbo</i>	acellular	Kölliker, 1859
Myctophiformes	Incertae sedis	<i>Synodus</i> sp.		acellular	Moss, 1961a
†Ctenothrissiformes	Myctophidae	<i>Notoscopelus elongatus</i>	<i>Myctophum elongatum</i>	acellular	Kölliker, 1859
	†Ctenothrissidae	† <i>Ctenothrissa rexilifera</i>		acellular	Davesne et al., 2018
Acanthomorpha					
Lampridiformes	Incertae sedis	† <i>Pycnopterus lepidipinnus</i>		acellular	Davesne et al., 2018
	Incertae sedis	† <i>Aphichthys' reideri</i>		acellular	Davesne et al., 2018
	Lampridiidae	<i>Lampris</i> sp.		cellular	Davesne et al., 2018; this study
	Regalecidae	<i>Regalecus russelii</i>		acellular	Paig-Tran et al., 2016
	Trachipteridae	<i>Trachipterus trachipterus</i>	<i>T. spinulae, T. taenia</i>	acellular	Kölliker, 1859
		<i>Zu cristatus</i>	<i>Trachipterus repandus</i>	acellular	Kölliker, 1859
	Veliferidae	<i>Metavelifer multidiradiatus</i>		acellular	this study
		<i>Velifer hypoleptopterus</i>		acellular	Davesne et al., 2018
Polymixiformes	Polymixiidae	† <i>Omosoma</i> sp.		acellular	Davesne et al., 2018
		<i>Palynxia</i> sp.		acellular	personal observation (NHMUK)
		<i>Palynxia nobilis</i>		acellular	this study
Percopsiformes	Amblyopsidae	<i>Amblyopsis spelaea</i>		acellular	Kölliker, 1859; Moss, 1965
	Aphredoderidae	<i>Aphredoderus seyanus</i>		acellular	Moss, 1965
	Percopsidae	<i>Peropis omisomycus</i>		acellular	Moss, 1965
Gadiformes	Gadidae	various Gadiformes		acellular	Khemiri et al., 2001
		<i>Gadus morhua</i>		acellular	Kölliker, 1859; Moss, 1961a
		<i>Melanogrammus aeglefinus</i>	<i>Gadus aeglefinus</i>	acellular	Kölliker, 1859
	Lotidae	<i>Gaidropsarus mediterraneus</i>	<i>Motella triacanthata</i>	acellular	Kölliker, 1859
		<i>Lota lota</i>	<i>L. lacustris, L. vulgaris</i>	acellular	Kölliker, 1859; Amprino & Godina, 1956; Moss, 1965
	Macrouridae	<i>Codolorhinus acolorhinus</i>		acellular	Meunier et al., 2008
		<i>Coryphaenoides zaniophorus</i>		acellular	Meunier, 1984
		<i>Nexipinnia aquaalis</i>		acellular	Kölliker, 1859
		<i>Trachyrhynchus sabrus</i>	<i>Lepidolepis trachyrhynchus</i>	acellular	Amprino & Godina, 1956
Zeiformes	Merlucciidae	<i>Merluccius merluccius</i>		acellular	Kölliker, 1859
	Zeidae	<i>Zeus faber</i>		acellular	Davesne et al., 2018
Trachichthyiformes	Incertae sedis	† <i>Ariogaster heckeli</i>		acellular	

		Monocentridae	<i>Cleidopus gloriamaris</i>			
	Holocentriformes	Holocentridae	<i>Momotensis japonica</i>			
	Ophidiiformes	Carapidae	<i>Holocentrus adscensionis</i>			
			<i>Carpus aca</i>	<i>Fierasfer imberbis</i>		
			<i>Carpus bermudensis</i>			
	Batrachoidiformes	Ophidiidae	<i>Ophidion barbatum</i>			
Gobiaria	Kurtiformes	Batrachoididae	<i>Opsanus tau</i>	<i>Batrachus tau</i>	acellular	
			<i>Opsanus tau</i>		acellular	
			<i>Apogon imberbis</i>	<i>A. rezimorum</i>	acellular	
	Gobiiformes	Eleotridae	<i>Astrapogon stellatus</i>	<i>Apogon stellatus</i>	acellular	
		Gobiidae	<i>Batis humeralis</i>	<i>Eleotris humeralis</i>	acellular	
			<i>Dormitator maculatus</i>		acellular	
Pelagaria	Scombriformes	Centrolophidae	<i>Acanthogobius flammatus</i>		acellular	
			<i>Gobius cruentatus</i>		acellular	
			<i>Gobius niger</i>	<i>G. longiradiatus</i>	acellular	
			<i>Gobius paganelus</i>	<i>G. capito</i>	acellular	
			<i>Taenioides angillaris</i>	<i>Amblyopus hermannianus</i>	acellular	
			<i>Trypauchen vagina</i>		acellular	
			sp.		acellular	
		Centrolophidae	<i>Centrolophus niger</i>	<i>C. pomplus</i>	acellular	
			<i>Hyperoplites</i> sp.	<i>Palinurichthys</i> sp.	acellular	
		Scombridae - Gasterochismatini	<i>Gasterochisma melampus</i>		acellular	
		Scombridae - Scombrini	<i>Somber australasicus</i>		acellular	
			<i>Somber sombrus</i>		acellular	
		Scombridae - Scomberomorini	<i>Acanthocybium solandri</i>		acellular	
			<i>Scomberomorus carda</i>		acellular	
			<i>Scomberomorus maculatus</i>		acellular	
		Scombridae - Sardini	<i>Gymnoaura unicolor</i>		acellular	
			<i>Sarda orientalis</i>		acellular	
		Scombridae - Thunnini	<i>Aucis rochei</i>	<i>A. bicus</i>	cellular	
			<i>Euthynnus affinis</i>		cellular	
			<i>Euthynnus alletteratus</i>		cellular	
			<i>Euthynnus lineatus</i>		cellular	
			<i>Katsuwonus pelamis</i>	<i>Euthynnus pelamis</i>	acellular	possibly an error
			<i>Katsuwonus pelamis</i>		acellular	
			<i>Thunnus alalunga</i>		cellular	
			<i>Thunnus albaeatus</i>		cellular	
			<i>Thunnus obesus</i>		cellular	
			<i>Thunnus thynnus</i>	<i>Thynnus vulgaris</i>	cellular	
			<i>Thunnus</i> sp.		cellular	
			<i>Thunnus</i> sp.		acellular	possibly an error
Syngnatharia	Syngnathiformes	Aulostomidae	<i>Peprius triacanthus</i>	<i>Poronotus triacanthus</i>	acellular	
		Callionymidae	<i>Tetragonurus curieri</i>		acellular	
		Centrisidae	<i>†Lepidopus albyi</i>		acellular	
		Trichiuridae	<i>Lepidopus caudatus</i>	<i>L. argyreus</i>	acellular	
			<i>Trichiurus lepturus</i>	<i>T. haemata</i>	acellular	
		Dactylopteridae	<i>Dactylopterus volitans</i>		acellular	
		Fistulariidae	<i>Fistularia petimba</i>	<i>F. immaculata</i>	acellular	
		Mullidae	<i>Mallus barbatus</i>		acellular	
		Pegasidae	<i>Enoplognatha draconis</i>	<i>Pegasus draco</i>	acellular	
		Syngnathidae	<i>Hippocampus erectus</i>	<i>H. histronus</i>	acellular	
			<i>Hippocampus guttulatus</i>		acellular	
			<i>Micropis lineatus</i>	<i>Ostethus lineatus</i>	acellular	
			<i>Syngnathus typhle</i>		acellular	
			<i>Syngnathus</i> sp.		acellular	
	Synbranchiformes	Mastacembelidae	<i>Mastacembelus circuminctus</i>	<i>Mastacembelus circuminctus</i>	acellular	
			<i>Mastacembelus paniculus</i>	<i>Mastacembelus paniculus</i>	acellular	
		Synbranchidae	<i>Momotoperca albina</i>	<i>M. javanica</i>	acellular	
			<i>Momotoperca aublina</i>	<i>Amphipnous aublina</i>	acellular	
			<i>Synbranchus marmoratus</i>	<i>S. immaculatus</i>	acellular	
Anabantaria	Anabantiformes	Anabantidae	<i>Anabas testudineus</i>	<i>A. sandens</i>	acellular	
		Channidae	<i>Channa asiatica</i>	<i>C. ocellata</i>	acellular	
			<i>Channa gachua</i>	<i>Ophicephalus gachua</i>	acellular	
			<i>Channa striata</i>	<i>Ophicephalus striatus</i>	acellular	
		Helostomatidae	<i>Helostoma temminckii</i>		acellular	
		Osphronemidae	<i>Bodotria hasselti</i>	<i>Polyacanthus hasselti</i>	acellular	
			<i>Sandelia capensis</i>	<i>Spirobanchus capensis</i>	acellular	
			<i>Trichopodus trichopterus</i>		acellular	
Carangaria	Inverte sedis	Polynemidae	<i>Polynemus paradoxus</i>		acellular	
		Sphyraenidae	<i>Sphyraena barracuda</i>		acellular	
		Toxotidae	<i>Tetraodon chatarensis</i>		acellular	
	Carangiformes	Carangidae	<i>Caranx bartholomaei</i>	<i>Caranx bartholomaei</i>	acellular	
			<i>Caranx hippos</i>	<i>C. caranx</i>	acellular	
			<i>Caranx latus</i>		acellular	
					cellular hyperostotic cleithrum	Smith-Vaniz et al., 1995

		<i>Elagatis bipinnulata</i>	acellular	Moss, 1961a
		<i>Nauvoates ducor</i>	acellular	Kölliker, 1859
		<i>Oligoplites saurus</i>	acellular	Kölliker, 1859
		<i>Selenes brownii</i>	acellular	Kölliker, 1859
		<i>Selenes vomer</i>	acellular	Kölliker, 1859
		<i>Argyrosomus vomer</i>	acellular	Kölliker, 1859
		<i>Seriola</i> sp.	acellular	Kölliker, 1859
		<i>Trachinotus oratus</i>	acellular	Kölliker, 1859
		<i>Trachinus mediterraneus</i>	acellular	Kölliker, 1859
		<i>Trachurus trachurus</i>	acellular	Kölliker, 1859
	Coryphaenidae	<i>Coryphaena hippurus</i>	acellular	Meunier et al., 2008
	Echencidae	<i>Echeneis naucrates</i>	acellular	Kölliker, 1859; Desse et al., 1981; Meunier, 1984; this study
	Rachycentridae	<i>Remora remora</i>	acellular	Kölliker, 1859; Moss, 1961a
Istiophoriformes	Istiophoridae	<i>Rachycentron canadum</i>	acellular	Moss, 1961a
		<i>Istiophorus albicans</i>	acellular	Kölliker, 1859
		<i>Kajikia albida</i>	acellular	Atkins et al., 2014; this study
		<i>Makaira nigricans</i>	acellular	Moss, 1961a; Atkins et al., 2014
		<i>Tetrapturus angustirostris</i>	acellular	Atkins et al., 2014
		<i>Tetrapturus belone</i>	acellular	Kölliker, 1859
	Xiphidae	<i>Xiphias gladius</i>	acellular	Kölliker, 1859; Amprino & Godina, 1956; Atkins et al., 2014; this study
Pleuronectiformes	Achiridae	<i>Trinectes maculatus</i>	acellular	Kölliker, 1859; Moss, 1961a
	Bothidae	<i>Balbus pedas</i>	acellular	Kölliker, 1859
	Cynoglossidae	<i>Synodus</i> sp.	acellular	Kölliker, 1859
	Paralichthyidae	<i>Anclopetta</i> sp.	acellular	Moss, 1961a
	Pleuronectidae	<i>Paralichthys</i> sp.	acellular	Moss, 1961a
		<i>Platichthys flesus</i>	acellular	Kölliker, 1859
		<i>Pseudopleuronectes americanus</i>	acellular	Moss, 1961a
	Scophthalmidae	<i>Sophidulus maximus</i>	acellular	Kölliker, 1859
Ovalentaria	Incertae sedis	<i>Soleida</i>	acellular	Amprino & Godina, 1956
	Ambassidae	<i>Parambassis wolffii</i>	acellular	Moss, 1965
	Embiotocidae	<i>Hystericarpus traskii</i>	acellular	Moss, 1965
	Polycentridae	<i>Monacanthus polyacanthus</i>	acellular	Moss, 1961a
	Pomacentridae	<i>Anabuloides saxatilis</i>	acellular	Moss, 1961a
		<i>Anabuloides rajaniensis</i>	acellular	Kölliker, 1859
		<i>Amphilophion frenatus</i>	acellular	Moss, 1961a
		<i>Amphilophion percula</i>	acellular	Moss, 1961a
		<i>Chromis chromis</i>	acellular	Kölliker, 1859
	Cichlidae	<i>Dascyllus aruanus</i>	acellular	Kölliker, 1859
Cichliformes		<i>Siganus fasciatus</i>	acellular	Kölliker, 1859; Moss, 1961a
		<i>Siganus lenticulatus</i>	acellular	Moss, 1961a
		<i>Andinoacara latifrons</i>	acellular	Moss, 1961a
		<i>Geophagus surinamensis</i>	acellular	Kölliker, 1859
		<i>Haplochromis elegans</i>	acellular	Huysseune, 1986
		<i>Herichthys deppii</i>	acellular	Kölliker, 1859
		<i>Oreochromis aureus</i>	acellular	Cohen et al., 2012
		<i>Oreochromis niloticus</i>	acellular	Kölliker, 1859; Meunier et al., 2008
Atheriniformes	Atherinidae	<i>Pterophyllum saudare</i>	acellular	Moss, 1961a
	Atherinopsidae	<i>Sarotherodon melanobranchus</i>	acellular	Moss, 1965
		<i>Viej a maculicauda</i>	acellular	Moss, 1965
		? <i>Atherina presbyter</i>	acellular	Kölliker, 1859
		<i>Atherinella sallei</i>	acellular	Moss, 1965
		<i>Chirostoma humboldtianum</i>	acellular	Kölliker, 1859
		<i>Chirostoma jordani</i>	acellular	Moss, 1965
		<i>Labioides siculus</i>	acellular	Moss, 1965
Beloniformes	Adrianichthyidae	<i>Oryzias latipes</i>	acellular	Ekanayake & Hall, 1987; Cao et al., 2011
	Belonidae	<i>Belone belone</i>	acellular	Kölliker, 1859
		<i>B. vulgaris</i>	acellular	Moss, 1961a
		<i>Patamorhaphis guianensis</i>	acellular	Moss, 1965
	Exocoetidae	<i>Strongylura marina</i>	acellular	Moss, 1961a
	Hemiramphidae	<i>Strongylura notata</i>	acellular	Moss, 1961a
	Scomberosciidae	<i>Strongylura strongylura</i>	acellular	Kölliker, 1859
Cyprinodontiformes	Anablepsidae	<i>Tylosurus aca</i>	acellular	Kölliker, 1859
	Cyprinodontidae	<i>Cleithopagon exsiliens</i>	acellular	Kölliker, 1859
		<i>Hemiramphus</i> sp.	acellular	Kölliker, 1859
		<i>Somberoscius saurus</i>	acellular	Kölliker, 1859
		<i>Anableps anableps</i>	acellular	Kölliker, 1859; Moss, 1961a
		<i>Aphyanis fasciatus</i>	acellular	Kölliker, 1859
	Fundulidae	<i>Orestias mulleri</i>	acellular	Moss, 1965
		<i>Fundulus diaphanus</i>	acellular	Moss, 1965
		<i>Fundulus heteroclitus</i>	acellular	Moss, 1961a
		<i>Fundulus kansae</i>	acellular	Moss, 1965
	Goodeidae	<i>Goodea latipollis</i>	acellular	Moss, 1965
	Poeciliidae	<i>Ilyodon furcifer</i>	acellular	Moss, 1965
		<i>Bedonosus belizianus</i>	acellular	Moss, 1965
		<i>Gambusia manni</i>	acellular	Moss, 1961a
		<i>Poecilia formosa</i>	acellular	Moss, 1965
		<i>Poecilia latipinna</i>	acellular	Kölliker, 1859; Moss, 1961a
		<i>Poecilia reticulata</i>	acellular	Moss, 1961a
		<i>Poecilia sphenops</i>	acellular	Moss, 1965
		<i>Poecilia reticulata</i>	acellular	Kölliker, 1859
		<i>Xiphophorus montezumae</i>	acellular	Moss, 1965

Mugiliformes	Mugilidae	<i>Mugil cephalus</i>	acellular	Kölliker, 1859	
Gobiesociformes	Gobiesocidae	<i>Lepadogaster lepadogaster</i>	acellular	Kölliker, 1859; Moss, 1961a	
Blenniiformes	Blenniidae	<i>Coryphoblennius galerita</i>	acellular	Kölliker, 1859	
		<i>Istiblennius edentulus</i>	acellular	Kölliker, 1859	
		<i>Parablennius gattorugine</i>	acellular	Kölliker, 1859	
		<i>Sartella cristata</i>	acellular	Kölliker, 1859	
	Clinidae	<i>Clinirachis argenteatus</i>	acellular	Kölliker, 1859	
		<i>Cristiceps sp.</i>	acellular	Kölliker, 1859	
Eupercaria	<i>Incertae sedis</i>	<i>Callanthiidae</i>	<i>Callanthias ruber</i>	acellular	
		<i>Malacanthidae</i>	<i>Malanthus plumieri</i>	acellular	
		<i>Moroniidae</i>	<i>Dicentrarchus labrax</i>	acellular	
		<i>Morone americana</i>	<i>Roccus americanus</i>	acellular	
		<i>Pomacanthidae</i>	<i>Morone chrysops</i>	acellular	
			<i>Holcanthus ciliaris</i>	<i>Roccus chrysops</i>	acellular
			<i>Holcanthus bermudensis</i>	<i>H. isabelae</i>	acellular
		<i>Scatophagidae</i>	<i>Scatophagus argus</i>	acellular	
		<i>Sciaenidae</i>	<i>Aphredoderus granulosus</i>	acellular	
			<i>Cynoscion regalis</i>	<i>Otolithus regalis</i>	acellular
			<i>Johnius belangerii</i>	<i>Corvina lobata</i>	acellular
			<i>Menticirrhus sp.</i>		acellular
			<i>Micropogonias altipinnis</i>		acellular
			<i>Micropogonias undulatus</i>		acellular
			<i>Micropogonias sp.</i>		acellular
			<i>Pogonias cromis</i>		acellular
		<i>Siganidae</i>	<i>Siganus umbra</i>	<i>Corvina nigra</i>	acellular
Gerriformes	<i>Gerridae</i>		<i>Siganus jarius</i>	<i>Amphibanthus jarius</i>	acellular
		<i>Eugerres plumieri</i>	<i>Gerris plumieri</i>	acellular	
Uranoscopiformes	Ammodytidae	<i>Ammodytes tobianus</i>	acellular		
	Uranoscopidae	<i>Uranoscopus saeker</i>	acellular		
Labridiformes	Labridae	<i>Bodianus scrofa</i>	<i>Labrus scrofa</i>	acellular	
		<i>Coris julis</i>	<i>Julis vulgaris</i>	acellular	
		<i>Halichoeres bivittatus</i>		acellular	
		<i>Halichoeres radiatus</i>		acellular	
		<i>Labrus mixtus</i>	<i>L. variegatus</i>	acellular	
		<i>Lachnolaimus maximus</i>		acellular	
		<i>Syphodus tinus</i>	<i>Crenilabrus pavo</i>	acellular	
		<i>Thalassoma bifasciatum</i>		acellular	
		<i>Thalassoma pavo</i>	<i>Julis pavo</i>	acellular	
		<i>Xyrichtys novacula</i>		acellular	
	Scaridae	<i>Chlorurus microrhinos</i>		acellular	
		<i>Scarus vetula</i>		acellular	
		<i>Spuriomia chrysopterum</i>		acellular	
Ephippiformes	Drepanidae	<i>Spuriomia cretense</i>	<i>Scarus creticas</i>	acellular	
	Ephippidae	<i>Drepane africana</i>		acellular	
		<i>Chaetodipterus faber</i>	<i>Ephippus faber, E. gigas</i>	acellular	
Chaetodontiformes	Chaetodontidae	<i>Chaetodon capistratus</i>		acellular	
		<i>Chaetodon ocellatus</i>		acellular	
		<i>Sisorius insidiosus</i>		acellular	
Acanthuriformes	Leiognathidae	<i>Acanthurus chirurgus</i>	<i>Equula insidiatrix</i>	acellular	
	Acanthuridae	<i>Acanthurus nigriacus</i>		acellular	
		<i>Ctenochaetus striatus</i>		acellular (modified scale)	
Lutjaniformes	Luvaridae	<i>Naso brevirostris</i>	<i>Nasseus longiornis</i>	acellular	
	Haemulidae	<i>Lutjanus imperialis</i>	<i>Astrodermus guttatus</i>	acellular	
		<i>Haemulon album</i>		acellular	
		<i>Haemulon flavolineatum</i>		acellular	
		<i>Haemulon parra</i>		acellular	
		<i>Haemulon sciurus</i>		acellular	
		<i>Pomadasys argenteus</i>	<i>Pomadasys hastata</i>	acellular	
		<i>Pomadasys stridens</i>	<i>Pristipoma stridens</i>	acellular	
	Lutjanidae	<i>Lutjanus apodus</i>		acellular	
		<i>Lutjanus synagris</i>		acellular	
		<i>Ocyurus chrysurus</i>		acellular	
Lobtoformes	Datnioididae	<i>Datnioides microlepis</i>		acellular	
	Lobtidae	<i>Lobotes surinamensis</i>		acellular	
Spariformes	Lethrinidae	<i>Lethrinus nebulosus</i>		acellular	
	Sparidae	<i>Acanthopagrus australis</i>		acellular	
		<i>Archosargus probatocephalus</i>	<i>Sargus ovis</i>	acellular	
		<i>Boops boops</i>	<i>B. vulgaris</i>	acellular	
		<i>Calamus artifrons</i>		acellular	
		<i>Calamus bajonado</i>		acellular	
		<i>Centrocanthus cirrus</i>	<i>Smaris insidiosus</i>	acellular	
		<i>Dentex dentex</i>	<i>D. vulgaris</i>	acellular	
		<i>Diplobatis annularis</i>	<i>Sargus annularis</i>	acellular	
		<i>Lagodon rhomboides</i>		acellular	
		<i>Lutognathus sp.</i>		acellular	
				alleged osteocytes in cytoplasmic tubules	
				Meunier & Herbin, 2014	

		<i>Oblada melanura</i>		acellular		Amprino & Godina, 1956
		<i>Pagellus bogaraveo</i>	<i>P. centrodontus</i>	acellular		Kölliker, 1859
		<i>Pagrus auratus</i>	<i>Chrysophrys aurata</i>	acellular		Kölliker, 1859; Hughes et al., 1994
		<i>Pagrus pagrus</i>	<i>P. vulgaris</i>	acellular		Kölliker, 1859
		<i>Rhabdoargus sarba</i>		acellular		Hughes et al., 1994
		<i>Sarpa salpa</i>	<i>Boops salpa</i>	acellular		Kölliker, 1859
		<i>Sparus aurata</i>		acellular		Estévão et al., 2011; Sire & Meunier, 2017
		<i>Spicara smaris</i>	<i>Smaris vulgaris</i>	acellular		Kölliker, 1859
Priacanthiformes	Cepolidae	<i>Cepola macrophthalmus</i>	<i>C. rubescens</i>	acellular		Kölliker, 1859
	Priacanthidae	<i>Priacanthus arenatus</i>		acellular		Moss, 1961a
		<i>Priacanthus hamrur</i>	<i>P. macrophthalmus</i>	acellular		Kölliker, 1859
Caproiformes	Caproidae	<i>Capros aper</i>		acellular		Kölliker, 1859
Lophiiformes	Antennariidae	<i>Histiostix histrio</i>	<i>Chironemus histrio</i>	acellular		Kölliker, 1859
	Lophiidae	<i>Lophius americanus</i>		acellular		Kölliker, 1859; Moss, 1961a
		<i>Lophius piscatorius</i>		acellular		Meunier, 1984; Meunier et al., 2008
Tetraodontiformes	Ogcocephalidae	<i>Ogcocephalus resupinatus</i>	<i>Maltbe respertilio</i>	acellular		Kölliker, 1859
	Balistidae	<i>Balistapus undulatus</i>		acellular		Kölliker, 1859; Meunier & Herbin, 2014
		<i>Balistes capricornis</i>		acellular		Moss, 1961a
		<i>Balistes reticulatus</i>		acellular		Kölliker, 1859; Moss, 1961a
		<i>Balistoides conspicillum</i>		acellular		Moss, 1961a
	Diodontidae	<i>Cantidermis sufflamen</i>		acellular		Meunier, 2009
		<i>Chilomycterus sp.</i>		acellular		Moss, 1961a
		<i>Diodon hystrix</i>		acellular		Moss, 1961a
		<i>Diodon sp.</i>		acellular		Moss, 1961a
	Molidae	<i>Mola mola</i>	<i>Orthagoriscus mola</i>	acellular		Kölliker, 1859
	Monacanthidae	<i>Alticetus scriptus</i>	<i>A. laevis</i>	acellular		Kölliker, 1859
		<i>Alticetus sp.</i>		acellular		Moss, 1961a
		<i>Monacanthus chinensis</i>	<i>M. geographicus</i>	acellular		Kölliker, 1859
Ostraciidae		<i>Lactophrys trigonus</i>		acellular		Moss, 1961a
		<i>Lactophrys triqueter</i>	<i>Ostracion triqueter</i>	acellular		Kölliker, 1859
Tetraodontidae		<i>Sphoeroides maculatus</i>		acellular		Moss, 1961a
		<i>Sphoeroides testudineus</i>		acellular		Moss, 1961a
		<i>Tetraodon lineatus</i>	<i>T. fabaca</i>	acellular		Kölliker, 1859
Pempheriformes	Triacanthidae	<i>Triacanthus biseptatus</i>	<i>T. brevirstris</i>	acellular		Kölliker, 1859
Centrarchiformes	Epigonidae	<i>Epigonus teleosoma</i>	<i>Pomatomus teleosoma</i>	acellular		Kölliker, 1859
	Centrarchidae	<i>Acantharchus pomotis</i>		acellular		Moss, 1965
		<i>Ambloplites rupestris</i>		acellular		Moss, 1965
		<i>Centrarchus macropterus</i>	<i>C. labridens</i>	acellular		Kölliker, 1859; Moss, 1965
		<i>Enneapteryngus chaetodon</i>	<i>Mesogonistius chaetodon</i>	acellular		Moss, 1965
		<i>Enneapteryngus obesus</i>		acellular		Moss, 1965
		<i>Lepomis cyanellus</i>	<i>Apomotis cyanellus</i>	acellular		Moss, 1965
		<i>Lepomis gibbosus</i>	<i>Pomotis gibbosus</i>	acellular		Kölliker, 1859; Moss, 1961a
		<i>Lepomis gulosus</i>	<i>Chaoenobryitus gulosus</i>	acellular		Moss, 1965
		<i>Lepomis macrochirus</i>		acellular		Moss, 1965
		<i>Lepomis marginatus</i>		acellular		Moss, 1965
		<i>Lepomis sp.</i>	<i>Helopera incisor</i>	acellular		Moss, 1965
	Elassomatidae	<i>Micropterus dolomieu</i>		acellular		Moss, 1965
	Percichthyidae	<i>Micropterus salmoides</i>	<i>Huro salmonoides</i>	acellular		Moss, 1965
		<i>Pomoxis annularis</i>		acellular		Moss, 1965
		<i>Pomoxis sp.</i>		acellular		Moss, 1965
		<i>Elassoma zonatum</i>		acellular		Moss, 1965
		<i>Siniperca chuatsi</i>		acellular		Moss, 1965
Perciformes <i>sensu stricto</i>	Terapontidae	<i>Terapon jarbua</i>	<i>T. servus</i>	acellular		Kölliker, 1859
	Agonidae	<i>Agonus cataphractus</i>	<i>Aspidophorus europeus</i>	acellular		Kölliker, 1859
	Anarhichadidae	<i>Anarhichas dentatus</i>		acellular		Meunier & Germain, 2018
		<i>Anarhichas lupus</i>		acellular		Kölliker, 1859; Meunier, 1984
Channichthyidae		<i>Champscephalus gunnari</i>		acellular		Meunier et al., 2008; Meunier et al., 2018c
	Cottidae	<i>Cottus asper</i>		acellular		Moss, 1965
		<i>Cottus carolinus</i>		acellular		Moss, 1965
		<i>Cottus cognatus</i>		acellular		Moss, 1965
		<i>Cottus gobio</i>		acellular		Kölliker, 1859
		<i>Myoxocephalus polyacanthoecephalus</i>		acellular		Horton & Summers, 2009
		<i>Myoxocephalus quadrivittatus</i>		acellular		Moss, 1965
		<i>Myoxocephalus thompsonii</i>	<i>Triglonaia thompsonii</i>	acellular		Moss, 1965
Cyclopteridae		<i>Cyclopterus lumpus</i>		acellular		Moss, 1961a
Gasterosteidae		<i>Apeltes quadratus</i>		acellular		Moss, 1965
Nototheniidae		<i>Gasterosteus aculeatus</i>	<i>G. trachurus</i>	acellular		Kölliker, 1859; Moss, 1965; Sire et al., 2009
Percidae		<i>Lepidomastix squamifrons</i>	<i>Notothenia squamifrons</i>	acellular		Meunier et al., 2008; Meunier et al., 2018c
		<i>Ammocrypta rixosa</i>		acellular		Moss, 1965
		<i>Etheostoma lateristrigatum</i>		acellular		Moss, 1965
		<i>Etheostoma nigrum</i>	<i>Boleosoma nigrum olmstedii</i>	acellular		Moss, 1965
		<i>Gymnocephalus cernuus</i>	<i>Acerina cernua, A. vulgaris</i>	acellular		Kölliker, 1859; Moss, 1965
		<i>Percina fluviatilis</i>		acellular		Moss, 1961a
		<i>Percina caprodes</i>		acellular		Kölliker, 1859; Meunier et al., 2008
		<i>Sander canadensis</i>		acellular		Moss, 1965
		<i>Sander lucioperca</i>	<i>Lachneria sandra</i>	acellular		Moss, 1965
Platycephalidae		<i>Platycephalus indicus</i>	<i>P. insidiosus</i>	acellular		Kölliker, 1859
Scorpaenidae		<i>Pterois volitans</i>		acellular		Moss & Posner, 1960; Moss, 1961a

Serranidae	<i>Scorpaena plumieri</i>	acellular	Moss, 1961a
	<i>Centropristes striata</i>	acellular	Moss, 1961a
	<i>Cephalopholis fulva</i>	acellular	Moss, 1961a
	<i>Diplodus formosum</i>	acellular	Moss, 1961a
	<i>Epinephelus drummondhayi</i>	acellular	Moss, 1961a
	<i>Epinephelus striatus</i>	acellular	Moss, 1961a
	<i>Paralabrax clathratus</i>	acellular	Glowacki et al., 1986
	<i>Seranus cabrilla</i>	acellular	Kölliker, 1859
	<i>Seranus</i> sp.	acellular	Moss, 1961a
Trachinidae	<i>Echichthys ripera</i>	acellular	Kölliker, 1859
	<i>Trachinus draco</i>	acellular	Kölliker, 1859
Trigidae	<i>Cleidodonichthys cinctus</i>	acellular	Kölliker, 1859
	<i>Prionotus arodinus</i>	acellular	Kölliker, 1859
	<i>Prionotus stephanophrys</i>	acellular	Kölliker, 1859
	<i>Prionotus</i> sp.	acellular	Kölliker, 1859
	<i>Trigla lyra</i>	acellular	Kölliker, 1859
Zoarcidae	<i>Thermares cerberus</i>	acellular	Meunier & Arnulf, 2018
		acellular hyperostotic bone	