

Contents

PREFACE	xiii
ACKNOWLEDGMENTS	xv
INTRODUCTION	xix
PRONUNCIATION OF FAMILY NAMES	xxxvii

Families and Maps

AGNATHA—Jawless Fishes	3
Petromyzontidae—lampreys	5
Geotriidae—pouched lamprey	8
Mordaciidae—Southern Hemisphere lampreys	11
GNATHOSTOMATA—Jawed Fishes	15
CHONDRICHTHYES—Cartilaginous Fishes	15
Carcharhinidae—requiem sharks	17
Potamotrygonidae—river stingrays	20
Dasyatidae—whiptail stingrays	24

SARCOPTERYGII—Lungfishes	27
Ceratodontidae—Australian lungfish	29
Lepidosirenidae—South American lungfish	31
Protopteridae—African lungfishes	33

ACTINOPTERYGII—Ray-Finned Fishes	35
Polypteridae—bichirs	37
Acipenseridae—sturgeons	41
Polyodontidae—paddlefishes	44
Lepisosteidae—gars	48
Amiidae—bowfin	50
Osteoglossidae—bonytongues	52
Pantodontidae—butterflyfish	56
Hiodontidae—mooneye and goldeneye	58
Notopteridae—featherbacks	60
Mormyridae—elephantfishes	62
Gymnarchidae—aba	66
Anguillidae—freshwater eels	68
Denticipitidae—denticle herring	72
Engraulidae—anchovies	74
Pristigasteridae—pristigasterids	77
Clupeidae—herrings	79
Sundasalangidae—sundasalangids	83
Kneriidae—kneriids	85
Phractolaemidae—snake mudhead	87
Cyprinidae—minnows, carps	89
Gyrinocheilidae—algae eaters	97
Catostomidae—suckers	98
Cobitidae—loaches	105
Balitoridae—river or hillstream loaches	107
Distichodontidae—distichodontids	110
Citharinidae—citharinids	113
Parodontidae—parodontids	114
Curimatidae—curimatids	116
Prochilodontidae—prochilodontids	118
Anostomidae—anostomids, headstanders	120
Chilodontidae—chilodontids, headstanders	122
Crenuchidae—crenuchids, South American darters	124
Hemiodontidae—hemiodontids	126
Alestidae—African characins or tetras	128

Gasteropelecidae—hatchetfishes, flying characins	130
Characidae—characids	132
Acestrorhynchidae—acestrorhynchids	140
Cynodontidae—cynodontids	142
Erythrinidae—trahiras	144
Lebiasinidae—lebiasinids	146
Ctenoluciidae—pike characins	148
Hepsetidae—African pike characins	150
Diplomystidae—diplomystids	151
Cetopsidae—whale-like catfishes	154
Ictaluridae—North American or bullhead catfishes	157
Claroteidae—claroteid catfishes	161
Austroglanididae—austroglanidid catfishes	163
Bagridae—bagrid catfishes	164
Pimelodidae—long-whiskered catfishes	167
Cranoglanididae—armorhead catfishes	171
Siluridae—silurid catfishes	173
Schilbeidae—schilbeid catfishes	175
Pangasiidae—pangasiid catfishes	177
Chacidae—squarehead, angler, or frogmouth catfishes	180
Plotosidae—eel-tail catfishes	181
Clariidae—air-breathing or walking catfishes	184
Heteropneustidae—air sac or stinging catfishes	188
Malapteruridae—electric catfishes	190
Ariidae—sea catfishes	192
Mochokidae—upside-down catfishes, squeakers	195
Doradidae—thorny or talking catfishes	198
Auchenipteridae—driftwood catfishes, slopehead catfishes	201
Amblycipitidae—torrent catfishes	205
Akysidae—stream catfishes	207
Sisoridae—sisorid catfishes	209
Erethistidae—erethistid catfishes	211
Aspredinidae—banjo catfishes	213
Amphiliidae—loach catfishes	216
Nematogenyidae—nematogenyid catfishes	218
Trichomycteridae—parasitic or pencil catfishes	219
Callichthyidae—armored catfishes	223
Scoloplacidae—spiny dwarf catfishes	226
Loricariidae—suckermouth armored catfishes	228
Astroblepidae—climbing catfishes	232
Sternopygidae—glass knifefishes	235
Rhamphichthyidae—sand knifefishes	238

Hypopomidae—hypopomid knifefishes	240
Apterontidae—ghost knifefishes	242
Gymnotidae—naked-back knifefishes	244
Electrophoridae—electric eel or electric knifefish	246
Esocidae—pikes	248
Umbridae—mudminnows	251
Osmeridae—smelts	255
Salangidae—icefishes or noodlefishes	259
Retropinnidae—Southern Hemisphere smelts and graylings	260
Lepidogalaxiidae—salamanderfish	263
Galaxiidae—galaxiids	266
Salmonidae—salmons, trouts	274
Percopsidae—trout—perches	282
Aphredoderidae—pirate perch	284
Amblyopsidae—cavefishes	286
Bythitidae—viviparous brotulas	288
Gadidae—cods	290
Batrachoididae—toadfishes	293
Mugilidae—mulletts	295
Bedotiidae—bedotiids	298
Melanotaeniidae—rainbowfishes	300
Pseudomugilidae—blue eyes	302
Atherinidae—silversides	304
Telmatherinidae—sailfin silversides or Celebes rainbowfishes	308
Phallostethidae—phallostethids or priapium fishes	309
Adrianichthyidae—ricefishes, medakas	311
Belonidae—needlefishes	314
Hemiramphidae—halfbeaks	317
Aplocheilidae—Old World aplocheiloids	321
Rivulidae—New World aplocheiloids or rivulines	324
Profundulidae—Middle American killifishes	327
Fundulidae—topminnows and killifishes	328
Valenciidae—valenciids	332
Anablepidae—four-eyed fishes	334
Poeciliidae—poeciliids	337
Goodeidae—goodeids	342
Cyprinodontidae—pupfishes, killifishes	345
Gasterosteidae—sticklebacks	350
Syngnathidae—pipefishes and seahorses	354
Indostomidae—indostomids	356
Synbranchidae—swamp eels	358
Chaudhuriidae—earthworm eels	361

Mastacembelidae—spiny eels	364
Cottidae—sculpins	366
Comephoridae—Baikal oilfishes	370
Abyssocottidae—abyssocottids	371
Centropomidae—snooks	373
Ambassidae—Asiatic glassfishes	377
Moronidae—temperate basses	379
Percichthyidae—temperate perches	383
Centrarchidae—sunfishes	390
Percidae—perches, darters	400
Apogonidae—cardinalfishes, mouth-almighty	408
Coiidae—tigerperches	411
Polynemidae—threadfins	413
Sciaenidae—drums, croakers	417
Monodactylidae—moonfishes	420
Toxotidae—archerfishes	422
Nandidae—Asian leaf-fishes	424
Polycentridae—African and South American leaf-fishes	427
Pristolepididae—pristolepidids	430
Terapontidae—grunters	431
Kuhliidae—flagtails	434
Elassomatidae—pygmy sunfishes	437
Cichlidae—cichlids	439
Embiotocidae—surfperches	450
Bovichthyidae—bovichthyids	453
Cheimarrhichthyidae—torrentfish	456
Rhyacichthyidae—loach gobies	457
Odontobutidae—odontobutids	460
Eleotridae—sleepers, gudgeons	461
Gobiidae—gobies	467
Kurtidae—nurseryfishes	473
Scatophagidae—scats	477
Luciocephalidae—pikehead	479
Anabantidae—climbing gouramies	482
Helostomatidae—kissing gourami	485
Belontiidae—gouramies	487
Osphronemidae—giant gouramies	490
Channidae—snakeheads	492
Achiridae—American soles	495
Soleidae—soles	498
Cynoglossidae—tonguefishes	500
Tetraodontidae—puffers	502

GLOSSARY	509
APPENDIX A: PRINCIPAL RIVERS OF THE WORLD	513
APPENDIX B: PRINCIPAL LAKES OF THE WORLD	519
BIBLIOGRAPHY	523
INDEX	587