

Table 1: Summary of species/taxa and number of images within the OIPL. The final library (as of July 2026) contains 4202 images from 102 taxa.

Family	Species/Taxon	Class Code	N Images	Fish Total Length (mm)		Otolith weight (mg)		Cross validation accuracy
				Min TL	Max TL	Min W	Max W	
Achiridae								
	<i>Achirus lineatus</i>	ACHLIN	2	65	65	1.4065	1.4065	50
	<i>Trinectes maculatus</i>	TRIMAC	6	73	108	1.667	4.285	40
Alosidae								
	<i>Brevoortia patronus</i>	BREPAT	82	31	213	0.061	2.424	97.56
Ariidae								
	<i>Ariopsis felis</i>	ARIFEL	60	52	159	6.26	97.852	100
	<i>Bagre marinus</i>	BAGMAR	73	78	178	16.3235	126.1455	100
Atherinopsidae								
	<i>Membras martinica</i>	MEMMAR	81	25	105	0.035	2.288	91.36
	<i>Menidia beryllina</i>	MENBER	149	50	113	0.409	2.0155	91.95
	<i>Menidia peninsulae</i>	MENPEN	44	34	87	0.013	1.146	86.36
Batrochoididae								
	<i>Opsanus beta</i>	OPSBET	8	18	71	0.1395	0.5405	100
Belonidae								
	<i>Strongylura timucu</i>	STRTIM	2	409	409	2.957	2.957	100
Blenniidae								
	<i>Chasmodes saburrae</i>	CHASAB	2	57	57	0.213	0.221	100
Carangidae								
	<i>Caranx crysos</i>	CARCRY	4	110	176	0.996	2.329	100
	<i>Caranx hippos</i>	CARHIP	3	38	205	0.105	1.72	66
	<i>Chloroscombrus chrysurus</i>	CHLCHR	111	20	221	0.049	8.579	97.3
	<i>Oligoplites saurus</i>	OLISAU	6	39	118	0.023	0.0455	16.67
	<i>Selene vomer</i>	SELVOM	36	32	137	0.175	3.369	86.11
	<i>Trachinotus carolinus</i>	TRACAR	16	26	75	0.0565	0.343	75
Cyclopsettidae								
	<i>Citharichthys macrops</i>	CITMAC	55	33	129	0.251	5.53	78.57
	<i>Citharichthys spilopterus</i>	CITSPI	105	24	135	0.15	6.358	79.05
	<i>Citharichthys</i> spp.	CITSPP	6	67	101	1.592	3.0425	40
Cynoglossidae								
	<i>Symphurus plagiusa</i>	SYMPLA	65	19	81	0.05	1.594	96.92
Cyprinodontidae								
	<i>Cyprinodon variegatus</i>	CYPVAR	105	21	60	0.1555	0.953	96.19
Diodontidae								
	<i>Chilomycterus schoepfii</i>	CHISCH	5	18	95	0.02	0.071	20
Dorosomatidae								
	<i>Dorosoma petenense</i>	DORPET	27	67	184	0.652	3.428	85.19
	<i>Harengula jaguana</i>	HARJAG	121	32	178	0.077	5.947	96.69
	<i>Opisthonema oglinum</i>	OPIOGL	4	28	130	1.0705	1.159	25
Eleotridae								
	<i>Dormitator maculatus</i>	DORMAC	2	70	70	2.0005	2.0005	0
	<i>Erotelis smaragdus</i>	EROSMA	8	138	157	8.187	17.7475	87.5
Engraulidae								
	<i>Anchoa hepsetus</i>	ANCHEP	77	43	138	0.483	11.7725	97.4
	<i>Anchoa lyolepis</i>	ANCLYO	8	42	69	0.523	1.544	87.5
	<i>Anchoa mitchilli</i>	ANCMIT	113	36	93	0.258	4.038	97.35
Ephippidae								
	<i>Chaetodipterus faber</i>	CHAFAB	8	17	24	0.1255	0.25	87.5
Epinephelidae								
	<i>Mycteroperca microlepis</i>	MYCMIC	10	95	285	4.538	50.924	100
Fundulidae								
	<i>Adinia (Fundulus) xenica</i>	ADIXEN	2	36	36	0.43	0.43	100
	<i>Fundulus grandis</i>	FUNGRA	121	40	102	0.394	3.546	93.39
	<i>Fundulus majalis</i>	FUNMAJ	2	85	85	3.5265	3.5265	0
	<i>Fundulus pulvereus</i>	FUNPUL	2	46	46	0.797	0.797	100
	<i>Fundulus pulvereus/confluentus</i>		7	58	67	1.2995	2.1085	-
	<i>Fundulus similis</i>	FUNSIM	96	47	100	0.644	3.8035	95.83
	<i>Lucania parva</i>	LUCPAR	5	39	48	0.333	0.6655	80
Gerreidae								
	<i>Eucinostomus argenteus</i>	EUCARG	12	45	52	1.041	1.9255	50
	<i>Eucinostomus gula</i>	EUCGUL	14	68	92	2.512	4.731	57.14
	<i>Eucinostomus harengulus</i>	EUCHAR	9	42	54	0.9	1.445	33.33
	<i>Eucinostomus melanopterus</i>	EUCMEL	34	60	93	1.751	4.178	91.18
	<i>Eucinostomus</i> spp.	EUCSPP	113	20	95	0.148	5.2305	79.65
	Gerreidae	GERREIDAE	5	79	90	1.8615	3.8465	20
Gobiesocidae								
	<i>Gobiesox strumosus</i>	GOBSTR	4	33	42	0.113	0.2715	75

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Gobiidae								
	<i>Bathygobius soporator</i>	BATSOP	8	52	64	1.082	1.344	100
	<i>Ctenogobius boleosoma</i>	CTEBOL	80	17	47	0.1115	1.1585	92.5
	<i>Evorthodus lyricus</i>	EVOLYR	17	47	69	0.553	1.03	82.35
	<i>Gobionellus oceanicus</i>	GOBOCE	15	40	180	0.6455	6.3055	80
	<i>Gobiosoma bosc</i>	GOBBOS	20	32	51	0.3735	1.017	95
Haemulidae								
	<i>Orthopristis chrysoptera</i>	ORTCHR	2	22	71	5.5405	5.5405	0
Hemiramphidae								
	<i>Hyporhamphus meeki</i>	HYPMEE	5	195	209	13.588	16.163	80
Labridae								
	<i>Cryptotomus roseus</i>	CRYROS	3	78	78	0.57	0.582	100
	<i>Nicholsina usta</i>	NICUST	13	23	188	0.429	3.4785	84.62
	<i>Sparisoma radians</i>	SPARAD	2	163	163	1.89	1.89	100
	<i>Sparisoma rubripinne</i>	SPARUB	4	94	125	1.1535	2.0615	50
	Scaridae	SCARIDAE	5	30	300	0.142	0.663	80
Lutjanidae								
	<i>Lutjanus campechanus</i>	LUTCCAM	72	59	134	7.577	38.823	97.22
	<i>Lutjanus griseus</i>	LUTGRI	147	12	245	0.146	40.374	95.24
	<i>Lutjanus synagris</i>	LUTSYN	130	26	141	0.286	29.243	96.92
Mugilidae								
	<i>Mugil cephalus</i>	MUGCEP	87	34	169	0.2985	14.8015	98.85
	<i>Mugil curema</i>	MUCCUR	77	32	148	0.822	10.7515	97.4
	<i>Mugill</i> spp.	MUCSPP	38	28	168	0.0925	0.228	97.37
Ophichthidae								
	<i>Myrophis punctatus</i>	MYRPUN	7	81	133	0.029	0.04	100
Paralichthyidae								
	<i>Ancylosetta ommata (quadrocellata)</i>	ANCOMM	2	116	116	3.2365	3.2365	100
	<i>Paralichthys albigutta</i>	PARALB	36	22	347	0.102	42.892	86.11
	<i>Paralichthys lethostigma</i>	PARLET	7	72	261	2.4385	20.45	42.86
Poeciliidae								
	<i>Gambusia holbrooki</i>	GAMHOL	2	36	36	0.495	0.495	100
	<i>Poecilia latipinna</i>	POELAT	39	30	141	0.392	1.546	97.44
Pomatomidae								
	<i>Pomatomus saltatrix</i>	POMSAL	4	49	124	1.454	1.533	50
Rachycentridae								
	<i>Rachycentron canadum</i>	RACCAN	2	55	289	0.969	1.761	50
Sciaenidae								
	<i>Bairdiella chrysoura</i>	BAICHR	101	28	156	1.034	70.727	100
	<i>Cynoscion arenarius</i>	CYNARE	109	35	223	1.119	202.996	99.08
	<i>Cynoscion nebulosus</i>	CYNNEB	183	19	227	0.205	148.783	99.45
	<i>Larimus fasciatus</i>	LARFAS	46	17	126	0.6205	83.014	91.3
	<i>Leiostomus xanthurus</i>	LEIXAN	128	26	222	0.503	54.809	99.22
	<i>Menticirrhus americanus</i>	MENAME	152	27	241	0.5275	56.1625	100
	<i>Menticirrhus littoralis</i>	MENLIT	6	50	76	1.2385	1.9745	66.67
	<i>Menticirrhus</i> spp.	MENSPP	4	33	64	0.3695	0.4325	100
	<i>Micropogonias undulatus</i>	MICUND	177	29	244	0.4435	329.49	98.31
	<i>Pogonias cromis</i>	POGCRO	4	73	208	50.503	96.9235	100
	<i>Sciaenops ocellatus</i>	SCIOCE	110	19	338	0.124	328.995	98.18
	<i>Stellifer lanceolatus</i>	STELAN	24	19	147	0.4745	54.123	100
Serranidae								
	<i>Centropristis philadelphica</i>	CENPHI	11	104	126	9.705	12.5195	90.91
	<i>Centropristis striata</i>	CENSTR	10	140	241	12.75	39.623	70
	<i>Diplectrum formosum</i>	DIPFOR	12	94	121	4.84	6.914	100
Sparidae								
	<i>Archosargus probatocephalus</i>	ARCPRO	5	33	81	0.517	2.8605	60
	<i>Lagodon rhomboides</i>	LAGRHO	137	20	208	0.06	27.783	87.59
	<i>Stenotomus caprinus</i>	STECAP	114	60	105	3.052	8.6265	98.25
Sphyraenidae								
	<i>Sphyraena barracuda</i>	SPHBAR	2	153	153	3.995	3.995	50
	<i>Sphyraena guachancho</i>	SPHGUA	10	85	200	2.498	14.094	100
Stromateidae								
	<i>Peprilus burti</i>	PEPBUR	12	22	72	0.175	2.752	83.33
	<i>Peprilus paru</i>	PEPPAR	36	27	110	0.7765	9.4735	97.22
Sygnathidae								
	<i>Syngnathus louisianae</i>	SYNLOU	1	186	186	0.058	0.058	0
	<i>Syngnathus</i> spp.	SYNSPP	1	103	103	0.07	0.07	-
Synodontidae								
	<i>Synodus foetens</i>	SYNFOE	73	53	396	0.586	38.485	97.26
Tetraodontidae								
	<i>Sphoeroides parvus</i>	SPHPAR	57	23	79	0.038	0.105	96.49
Trichiuridae								
	<i>Trichiurus lepturus</i>	TRILEP	4	120	179	0.136	0.4075	100
Triglidae								
	<i>Prionotus roseus</i>	PRIROS	7	14	138	8.802	13.974	100
	<i>Prionotus tribulus</i>	PRI TRI	11	22	241	0.05	0.724	45.45
Total: 102 taxa			4202	12	409	0.013	329.49	93