

Add. File 06: Overview of individual, absolute anatomical data and summary per species.

fish	section type	TL (mm)	MHD (mm)	EBV (mm ³)	Skull (bone) thickness ± SD _{intra} (µm)	Dermis thickness ± SD _{intra} (µm)	ON depth ± SD _{intra} (mm)	ON layers (#)	ON layer thickness ± SD _{intra} (µm)	Mean ON CSA ± SD _{intra} (mm ²)	Comments
Td1	10 µm	62	7.5	913	-	-	-	7	60.0 ± 8.1	0.170 ± 0.046	section series compromised * Only used for qualitative intra-ocular ON and retina structure. Since cropped to ROI, measurements would be incomplete.
Td2	10 µm	52	6.8	629	-	-	-	8	64.9 ± 14.9	0.144 ± 0.055	
Td3	10 µm	57	7.1	752	-	-	-	-	-		
Td4	10 µm	50	6.6	570	53.3 ± 20.3	89.5 ± 30.0	1.61 ± 0.18	8.5	39.7 ± 7.1	0.092 ± 0.024	
Td5	1 µm	47	6.6	536	-	-	-	-	-		
Td6	1 µm	50	6.6	570	-	-	-	-	-		
Td7	1 µm	56	7	718	-	-	-	-	-		
Td8	1 µm	50	6.5	553	-	-	-	-	-		
Td9	MRI	58	7.5	854	61.3 ± 15.6	89.6 ± 43.7	1.57 ± 0.37	-	-	-	
Td10	MRI	54	7.25	743	47.5 ± 9.9	103.4 ± 24.8	1.53 ± 0.25	-	-	-	
<i>T. delaisi</i>		53.6	6.9	684	54.0 ± 6.9	94.2 ± 8.0	1.57 ± 0.04	7.8 ± 0.8	54.9 ± 13.4	0.135 ± 0.040	
Mean ± SD		± 4.6	± 0.4	± 133							
Tm1	10 µm	45	5.05	300	-	-	-	6	47.9 ± 8.4	0.089 ± 0.021	see *
Tm2	10 µm	34	4.3	165	33 ± 8.9	30.9 ± 19.8	1.05 ± 0.07	7	32.2 ± 3.8	0.040 ± 0.011	
Tm3	1 µm	39	4.55	211	-	-	-	-	-	-	
Tm4	MRI	44	5.55	355	43.6 ± 11.3	39.6 ± 13.7	1.12 ± 0.25	-	-	-	
<i>T. melanurus</i>		40.5	4.9	258	38.3 ± 7.5	35.3 ± 6.2	1.09 ± 0.05	6.5 ± 0.7	40.1 ± 11.1	0.065 ± 0.035	
Mean ± SD		± 5.1	± 0.6	± 86							
<i>P. zvonimiri</i>	10 µm	42	5.55	339	84.2 ± 54.7	260.6 ± 160.4	1.38 ± 0.21	4.5	63.5 ± 8.4	0.124 ± 0.037	
Ao1	1 µm	56	10.7	1679	-	-	-	-	-	-	see *
Ao2	1 µm	47	8.6	910	-	-	-	-	-	-	
Ao3	1 µm	47	8.5	889	-	-	-	-	-	-	
Ao4	10 µm	57	10.2	1553	-	-	-	10	46.7 ± 4.7	0.089 ± 0.019	
Ao5	10 µm	56	10.65	1663	-	-	-	11	43.3 ± 9.0	0.096 ± 0.012	
Ao6	10 µm	50	9.3	1132	232.6 ± 92.0	207.4 ± 118.1	1.84 ± 0.16	9.5	38.1 ± 8.0	0.104 ± 0.013	
Ao7	MRI	52	10.2	1416	227.5 ± 64.7	224.6 ± 104.6	2.09 ± 0.21	-	-	-	
Ao8	MRI	49	9.05	1051	248.9 ± 68.3	281.2 ± 127.2	2.12 ± 0.18	-	-	-	
Ao9	MRI	62	12.35	2476	313.1 ± 103.3	386.8 ± 174.2	2.58 ± 0.12	-	-	-	
<i>A. ocellaris</i>		52.9	10.0	1419	255.5 ± 39.5	275.0 ± 80.9	2.16 ± 0.31	10.2 ± 0.8	42.7 ± 4.3	0.096 ± 0.007	
Mean ± SD		± 5.2	± 1.2	± 503							

CSA = Cross-sectional area; EBV = Estimated body volume; MHD = Mean head diameter; ON = Optic nerve; ROI = region of interest; SD = standard deviation of means per species; SD_{intra} = SD of subsamples within individual, TL = Total length