

Table S2: Parameters of the linear regression models of the allometries of optical parameters with respect to eye surface area. Each outcome was modelled as a linear combination of eye area and species (dummy-coded) with a constant intercept using ordinary least squares regression. The coefficient of determination (R^2) and F-statistic are provided as measurements of goodness-of-fit with asterisks indicating the significance according to the key at the bottom of the table. The intercept and slope are the resulting coefficients of the regression model. *D. mauritiana* RED3 – *D. simulans* M3 is the pairwise difference of means after accounting for differences in eye size, such that values < 0 imply that *D. simulans* M3 values were greater than *D. mauritiana* RED3 relative to eye size. The significance of these statistics (F, intercept, slope, and *D. mauritiana* RED3 – *D. simulans* M3) is signified by the number of asterisks next to these values according to the key at the bottom of the table.

outcome	R^2	F	intercept	slope	RED3 – M3
lens count	0.96	110***	976***	2.4×10^{-3} ***	-58***
lens diameters (μm)	0.97	159***	16***	2.1×10^{-5} ***	0.54***
lens diameter IQR (μm)	0.73	12**	1.1***	-3.4×10^{-5} *	0.33**
median IO angle ($^\circ$)	0.78	16**	4.9***	-7.1×10^{-5} ***	-0.009
median equatorial IO angle ($^\circ$)	0.92	53***	4.4***	-7.3×10^{-5} ***	0.22***
IO angle IQR ($^\circ$)	0.65	8**	3.1***	-2.2×10^{-6}	-0.51**
key:					
*: $p \leq .05$, **: $p \leq .01$, ***: $p \leq .001$					