

Table S3. Results from a phylogenetic ANOVA comparing relative opsin expression and single and double cone sensitivity to foraging mode and habitat among cichlid species from Lake Malawi using three different phylogenetic hypotheses (Fig. S2).

| Mitochondria | Habitat | | Foraging | |
|--------------|-------------------|-------|-------------------|--------------|
| | F _{4,45} | P | F _{4,45} | P |
| SWS1 | 2.229 | 0.456 | 7.647 | 0.007 |
| SWS2b | 0.332 | 0.977 | 1.234 | 0.598 |
| SWS2a | 1.468 | 0.656 | 1.957 | 0.367 |
| RH2b | 4.294 | 0.066 | 3.323 | 0.141 |
| RH2a | 3.127 | 0.214 | 0.755 | 0.810 |
| LWS | 4.345 | 0.061 | 1.147 | 0.636 |
| Single Cones | 2.179 | 0.493 | 9.065 | 0.002 |
| Double Cones | 4.084 | 0.085 | 2.067 | 0.363 |

| Generic | Habitat | | Foraging | |
|--------------|-------------------|-------|-------------------|--------------|
| | F _{4,45} | P | F _{4,45} | P |
| SWS1 | 2.229 | 0.344 | 7.647 | 0.034 |
| SWS2b | 0.332 | 0.951 | 1.234 | 0.761 |
| SWS2a | 1.468 | 0.513 | 1.957 | 0.583 |
| RH2b | 4.294 | 0.064 | 3.323 | 0.310 |
| RH2a | 3.127 | 0.162 | 0.755 | 0.882 |
| LWS | 4.345 | 0.056 | 1.147 | 0.789 |
| Single Cones | 2.179 | 0.343 | 9.065 | 0.012 |
| Double Cones | 4.084 | 0.077 | 2.067 | 0.531 |

| Star | Habitat | | Foraging | |
|--------------|-------------------|-------|-------------------|--------------|
| | F _{4,45} | P | F _{4,45} | P |
| SWS1 | 2.229 | 0.497 | 7.647 | 0.037 |
| SWS2b | 0.332 | 0.976 | 1.234 | 0.760 |
| SWS2a | 1.468 | 0.713 | 1.957 | 0.566 |
| RH2b | 4.294 | 0.109 | 3.323 | 0.364 |
| RH2a | 3.127 | 0.305 | 0.755 | 0.875 |
| LWS | 4.345 | 0.099 | 1.147 | 0.763 |
| Single Cones | 2.179 | 0.506 | 9.065 | 0.010 |
| Double Cones | 4.084 | 0.104 | 2.067 | 0.569 |

Values in bold are significant following Bonferroni correction for 8 hypothesis tests at an experiment-wise error rate of 10% ($\alpha = 0.10/8 = 0.0125$)[Quinn and Keough 2002].