Additional File 1: Tables S1-8 - Toomey and McGraw. The effects of sun exposure on carotenoid accumulation and oxidative stress in the retina of the house finch (*Haemorhous mexicanus)*

Table S1. Mean ± S.E. body mass of house finches in weeks 0, 4, and 8 of experiment 1.

		Mean ± S.E. body mass (g)		
Sun exposure	Sex	Week 0	Week 4	Week 8
High	Male	18.1 ± 0.3 (n = 8)	19.2 ± 0.4 (n = 7)	18.7 ± 0.3 (n = 7)
	Female	17.8 ± 0.2 (n = 5)	18.8 ± 0.3 (n = 6)	18.3 ± 0.1 (n = 6)
Low	Male	18.1 ± 0.4 (n = 8)	18.9 ± 0.4 (n = 8)	18.5 ± 0.3 (n = 8)
	Female	17.6 ± 0.4 (n = 7)	18.9 ± 0.4 (n = 7)	18.5 ± 0.4 (n = 7)

Table S2. Mean ± S.E. plasma carotenoid concentrations of house finches in weeks 0, 4, and 8 of experiment 1.

		Mean ± S.E. plasma carotenoid concentration (μg ml^{-1})		
Sun exposure	Sex	Week 0	Week 4	Week 8
High	Male	15.6 ± 1.1 (n = 8)	12.7 ± 0.8 (n = 7)	15.9 ± 1.7 (n = 7)
	Female	13.0 ± 1.6 (n = 6)	13.2 ± 1.3 (n = 6)	16.6 ± 2.4 (n = 6)
Low	Male	13.9 ± 1.3 (n = 8)	12.1 ± 0.7 (n = 8)	17.2 ± 2.0 (n = 8)
	Female	13.6 ± 1.1 (n = 7)	10.3 ± 0.6 (n = 7)	12.1 ± 0.6 (n = 7)

Table S3. Mean ± S.E. concentrations of retinal carotenoids in house finches at the conclusion of experiment 1.

Sun exposure	Sex	Mean ± carotenoid concentration (μg retina^{-1})					
		Astaxanthin	Galloxanthin	Lutein	Zeaxanthin	Unknown	ε-carotene
High	Male (n = 7)	0.34 ± 0.04	0.29 ± 0.03	0.07 ± 0.006	0.08 ± 0.007	0.03 ± 0.002	0.02 ± 0.0002
	Female (n = 6)	0.3 ± 0.04	0.39 ± 0.07	0.08 ± 0.007	0.08 ± 0.007	0.04 ± 0.002	0.02 ± 0.0002
Low	Male (n = 8)	0.32 ± 0.03	0.36 ± 0.04	0.08 ± 0.006	0.09 ± 0.006	0.04 ± 0.002	0.02 ± 0.0002
	Female (n = 6)	0.37 ± 0.03	0.35 ± 0.05	0.07 ± 0.007	0.08 ± 0.01	0.04 ± 0.003	0.01± 0.0002

Table S4. Mean ± S.E. levels of malondialdehyde (MDA) equivalents in the retinas of house finches at the conclusion of experiment 1.

Sun exposure	Sex	MDA equivalents (nmol mg^{-1})
High	Male (n = 7)	8.0 ± 0.8
	Female (n = 6)	8.2 ± 1.1
Low	Male (n = 7)	7.2 ± 1.0
	Female (n = 6)	6.8 ± 0.7

Table S5. Mean ± S.E. body mass of house finches in weeks 0, 4, and 8 of experiment 2.

Sun exposure	Diet	Mean ± S.E. body mass (g)		
		Week 0	Week 4	Week 8
High	Carotenoid	18.8 ± 0.3 (n = 8)	18.7 ± 0.3 (n = 8)	18.1 ± 0.4 (n = 5)
	Control	19.1 ± 0.3 (n = 8)	18.5 ± 0.3 (n = 8)	18 ± 0.5 (n = 5)
Low	Carotenoid	19.2 ± 0.4 (n = 8)	18.8 ± 0.6 (n = 8)	18.2 ± 0.5 (n = 8)
	Control	18.5 ± 0.3 (n = 8)	18.2 ± 0.5 (n = 8)	17.9 ± 0.4 (n = 8)

Table S6. Mean ± S.E. plasma carotenoid concentrations of house finches in weeks 0, 4, and 8 of experiment 2.

Sun exposure	Diet	Mean ± S.E. plasma carotenoid concentration (μg ml^{-1})		
		Week 0	Week 4	Week 8
High	Carotenoid	9.1 + 1.1 (n = 8)	14.4 + 2.2 (n = 8)	16.1 + 1.5 (n = 5)
	Control	7.3 + 0.6 (n = 7)	9.8 + 1.4 (n = 7)	7 + 1 (n = 5)
Low	Carotenoid	10.2 + 1.4 (n = 8)	20.1 + 4.3 (n = 8)	20.2 + 3.5 (n = 8)
	Control	7.0 + 0.4 (n = 8)	7.1 + 0.8 (n = 8)	8.5 + 1.7 (n = 8)

Table S7. Mean ± S.E. concentrations of retinal carotenoids in house finches at the conclusion of experiment 2.

Sun exposure	Diet	Mean ± carotenoid concentration (μg retina^{-1})					
		Astaxanthin	Galloxanthin	Lutein	Zeaxanthin	Unknown	ε-carotene
High	Carotenoid (n = 8)	0.739 ± 0.0745	0.413 ± 0.0268	0.085 ± 0.008	0.12 ± 0.0076	0.041 ± 0.0021	0.017 ± 0.0004
	Control (n = 8)	0.663 ± 0.0468	0.382 ± 0.0331	0.077 ± 0.0055	0.097 ± 0.0075	0.043 ± 0.003	0.017 ± 0.0004
Low	Carotenoid (n = 8)	0.652 ± 0.0334	0.539 ± 0.0412	0.078 ± 0.0042	0.13 ± 0.0091	0.045 ± 0.0035	0.018 ± 0.0004
	Control (n = 8)	0.613 ± 0.0304	0.381 ± 0.0693	0.076 ± 0.0047	0.089 ± 0.0104	0.049 ± 0.0066	0.017 ± 0.0005

Table S8. Mean ± S.E. levels of malondialdehyde (MDA) equivalents in the retinas of house finches at the conclusion of experiment 2.

Sun exposure	Diet	MDA equivalents (nmol mg^{-1})
High	Carotenoid (n = 5)	6.7 ± 0.9
	Control (n = 6)	6.9 ± 0.8
Low	Carotenoid (n = 7)	6.2 ± 0.6
	Control (n = 7)	6.5 ± 0.6