

Electronic Supplementary Material for “Social dominance, but not parasite load, affects sperm quality and sperm redox status in house sparrows.”

Table S1. Linear mixed-effect models testing for effects of the parasite infection, sampling day and the social rank on the oxidized and reduced glutathione levels in red blood cells (GSSG_{RBC} and GSH_{RBC}) and in sperm (GSSG_{sperm} and GSH_{sperm}). Each male was sampled after 0, 9 and 18 days of infection.

Effect	GSSG _{RBC}		GSH _{RBC}		GSSG _{sperm}		GSH _{sperm}	
	<i>F</i> _{df}	<i>P</i>	<i>F</i> _{df}	<i>P</i>	<i>F</i> _{df}	<i>P</i>	<i>F</i> _{df}	<i>P</i>
Parasite infection ^a	0.81 _{1,43}	0.37	0.07 _{1,43}	0.78	0.48 _{1,41}	0.49	0.04 _{1,41}	0.84
Rank	0.17 _{3,43}	0.91	0.66 _{3,43}	0.58	1.49 _{3,41}	0.23	1.02 _{3,41}	0.39
Day	97.1 _{2,88}	< 0.001	24.6 _{2,88}	< 0.001	1.12 _{2,81}	0.33	0.60 _{2,81}	0.55
Infection × Rank	0.88 _{3,43}	0.46	1.69 _{3,43}	0.18	0.06 _{3,41}	0.98	1.75 _{3,41}	0.17
Infection × Day	4.65 _{2,88}	0.01	3.06 _{2,88}	0.052	1.52 _{2,81}	0.22	2.33 _{2,81}	0.10
Rank x Day	3.73 _{6,88}	0.002	2.66 _{6,88}	0.02	1.55 _{6,81}	0.17	1.47 _{6,81}	0.20
Infection × Rank x Day	0.91 _{6,88}	0.49	1.80 _{6,88}	0.11	0.83 _{6,81}	0.55	1.06 _{6,81}	0.40

Table S2. Linear mixed-effect models testing for effects of the parasite infection, sampling day and social rank on sperm velocity measured across the 5% and across the 10% faster sperm. All 56 males were sampled 0 and 18 days after the parasite infection.

Effect	Sperm velocity (10% faster)		Sperm velocity (5% faster)	
	F_{df}	P	F_{df}	P
Intercept	-	-	-	-
Parasite treatment ^a	2.08 _{1,44}	0.16	0.72 _{1,18}	0.50
Rank	2.28 _{3,44}	0.09	0.82 _{3,58}	0.63
Day^b	144.0_{1,41}	< 0.001	15.1_{1,43}	<0.001
Treatment ^a × Rank	0.73 _{3,44}	0.33	0.49 _{3,31}	0.69
Treatment ^a × Day ^b	0.22 _{1,41}	0.43	0.01 _{1,43}	0.92
Rank x Day^b	3.32_{3,41}	0.03	1.00 _{3,43}	0.40
Treatment^a × Rank x Day^b	2.98_{3,41}	0.042	0.74 _{3,43}	0.53