APPENDIX K. Results of general linear models for meta-analysis.

Model 1: Response of parasite abundance to productivity as a function of parasite higher-order taxonomic groups / across-islands analysis

Test of moderators, $Q_M = 51.3149$, df = 4, p < 0.0001
Test for residual heterogeneity, $Q_E = 233.3801$, df = 39, p < 0.0001

Parameter	estimate	SE	z	p	hypothesis	data displayed
intercept[Cestoda]	17.2187	4.3388	3.9685	<0.0001	H_{2a}	Figure 3b
Crustacea	–29.0120	6.2578	–4.6362	<0.0001	H_{2a}	Figure 3b
Monogenea	–15.1601	5.5113	–2.7507	0.0059	H_{2a}	Figure 3b
Nematoda	–18.8340	5.6696	–3.3219	0.0009	H_{2a}	Figure 3b
Trematoda	–2.3753	4.6093	–0.5153	0.6063	H_{2a}	Figure 3b

Model 2: Response of parasite abundance to productivity as a function of parasite traits / across-islands analysis

Test of moderators $Q_M = 59.6167$, df = 5, p < 0.0001
Test for residual heterogeneity, $Q_E = 227.3207$, df = 39, p < 0.0001

Parameter	estimate	SE	z	p	hypothesis	data displayed
intercept	6.2367	15.5496	0.4011	0.6884		Figure 3a
transmission[trophic]	59.1598	12.1677	4.8620	<0.0001	H_{2a}	Figure 3a
host specificity	–12.1560	3.6506	–3.3299	0.0009	H_{2c}	Figure 3d
host response	0.2876	5.7728	0.0498	0.9603	H_{2b}	Figure 3c
transmission*host response	–15.9906	5.0475	–3.1680	0.0015	H_{2b}	Figure 3c
host specificity*host response	2.9753	1.4058	2.1165	0.0343	H_{2c}	n/a

Model 3: Response of parasite abundance to productivity–fishing as a function of parasite higher-order taxonomic groups / within-island analysis

Test of moderators, $Q_M = 42.4661$, df = 5, p < 0.0001
Test for residual heterogeneity, $Q_E = 80.3455$, df = 41, p < 0.0001

Parameter	estimate	SE	z	p	hypothesis	data displayed
Intercept	–26.7637	5.7388	–4.6636	<0.0001	H_3	Figure 4b
Cestoda	32.8281	7.4245	4.4216	<0.0001	H_3	Figure 4b
Crustacea	42.4310	7.9410	5.3433	<0.0001	H_3	Figure 4b
Monogenea	31.9395	11.7780	2.7118	0.0067	H_3	Figure 4b
Nematoda	20.0692	7.2979	2.7500	0.0060	H_3	Figure 4b
Trematoda	34.2434	6.0430	5.6666	<0.0001	H_3	Figure 4b

Model 4: Response of parasite abundance to productivity as a function of parasite traits / within-island analysis

Test of moderators $Q_M = 4.1110$, df = 1, p = 0.0426
Test for residual heterogeneity, $Q_E = 118.7005$, df = 45, p < 0.0001

Parameter	estimate	SE	z	p	hypothesis	data displayed
intercept	13.3419	4.8423	2.7553	0.0059	H_3	Figure 4a
transmission[trophic]	–10.3237	5.0917	–2.0276	0.0426	H_3	Figure 4a