Supplementary File S6

Title: A Global Meta-Analysis Reveals the Toxicity of Plastics on Insect Health

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Here are the Supplementary tables

1. **Table S2.** Results of pairwise comparisons from interaction plots presented in Figure 2. Significant differences (p < 0.05) are highlighted in bold. Pairwise comparisons were conducted among study within individual
2. **Table S3.** Summary of Hedge's g Effect Sizes, Sample Sizes, and p-Values for Biochemical Markers under Plastic Exposure

Table S2. Results of pairwise comparisons from interaction plots presented in Figure 2. Significant differences (p < 0.05) are highlighted in bold. Pairwise comparisons were conducted among study within individual

Study	Biological Traits	Pairwise Comparison	Estimate	SE	df	t-ratio	p-value
	Behavior	**China - Egypt**	**2.177013**	**0.225928**	**650**	**9.636**	**<.0001**
		China - Germany	-0.61619	0.219209	650	-2.811	0.057
		China - Italy	-1.73814	1.678388	650	-1.036	0.9058
		China - Portugal	**-1.76786**	**0.219155**	**650**	**-8.067**	**<.0001**
		China - Turkey	**1.516799**	**0.226027**	**650**	**6.711**	**<.0001**
		Egypt - Germany	**-2.7932**	**0.055121**	**650**	**-50.674**	**<.0001**
		Egypt - Italy	-3.91516	1.664924	650	-2.352	0.1753
		Egypt - Portugal	**-3.94488**	**0.054904**	**650**	**-71.85**	**<.0001**
		Egypt - Turkey	**-0.66021**	**0.077935**	**650**	**-8.471**	**<.0001**
		Germany - Italy	-1.12195	1.664025	650	-0.674	0.9847
		Germany - Portugal	**-1.15168**	**0.004882**	**650**	**-235.88**	**<.0001**
		Germany - Turkey	**2.132987**	**0.055527**	**650**	**38.414**	**<.0001**
	Development	**Italy - Australia**	**3.132322**	**0.51815**	**650**	**6.045**	**<.0001**
		Italy - Brazil	**0.068213**	**0.000136**	**650**	**500.279**	**<.0001**
		Italy - Canada	**0.466831**	**0.019757**	**650**	**23.629**	**<.0001**
		Italy - China	3.564353	0.765203	650	4.658	0.0002
		Italy - Estonia	**1.662821**	**0.302833**	**650**	**5.491**	**<.0001**
		Italy - Portugal	-0.72616	0.363426	650	-1.998	0.6007
		Italy - Taiwan	6.780274	2.516905	650	2.694	0.1782
		Italy - United Kingdom	1.754357	0.375592	650	4.671	0.0002
		Italy - USA	0.834783	0.33878	650	2.464	0.2901
		Australia - Brazil	**-3.06411**	**0.51815**	**650**	**-5.914**	**<.0001**
		Australia - Canada	**-2.66549**	**0.518527**	**650**	**-5.141**	**<.0001**
		Australia - China	0.432031	0.92413	650	0.468	1
		Australia - Estonia	-1.4695	0.600156	650	-2.449	0.2989
		Australia - Portugal	**-3.85849**	**0.632897**	**650**	**-6.097**	**<.0001**
		Australia - Taiwan	3.647952	2.569687	650	1.42	0.921
		Australia - United Kingdom	-1.37797	0.63996	650	-2.153	0.4905
		Australia - USA	-2.29754	0.619073	650	-3.711	0.0085
		Brazil - Canada	**0.398618**	**0.019758**	**650**	**20.175**	**<.0001**
		Brazil - China	3.496141	0.765203	650	4.569	0.0003
		Brazil - Estonia	**1.594609**	**0.302833**	**650**	**5.266**	**<.0001**
		Brazil - Portugal	-0.79438	0.363426	650	-2.186	0.4676
		Brazil - Taiwan	6.712062	2.516905	650	2.667	0.1896
		Brazil - United Kingdom	1.686145	0.375592	650	4.489	0.0004
		Brazil - USA	0.76657	0.33878	650	2.263	0.415
		Canada - China	3.097522	0.765458	650	4.047	0.0023
		Canada - Estonia	1.195991	0.303476	650	3.941	0.0036
		Canada - Portugal	-1.19299	0.363963	650	-3.278	0.0365
		Canada - Taiwan	6.313444	2.516982	650	2.508	0.2658
		Canada - United Kingdom	1.287527	0.376111	650	3.423	0.0229
		Canada - USA	0.367952	0.339355	650	1.084	0.9861
		China - Estonia	-1.90153	0.822948	650	-2.311	0.3834
		China - Portugal	**-4.29052**	**0.847122**	**650**	**-5.065**	**<.0001**
		China - Taiwan	3.215921	2.630655	650	1.222	0.9687
		China - United Kingdom	-1.81	0.852412	650	-2.123	0.5115
		China - USA	-2.72957	0.836844	650	-3.262	0.0384
		Estonia - Portugal	**-2.38899**	**0.473061**	**650**	**-5.05**	**<.0001**
		Estonia - Taiwan	5.117453	2.535058	650	2.019	0.5861
		Estonia - United Kingdom	0.091536	0.48247	650	0.19	1
		Estonia - USA	-0.82804	0.4544	650	-1.822	0.7209
	Fecundity	Brazil - China	-0.01736	0.415074	650	-0.042	1
		Brazil - Taiwan	1.046545	0.25798	650	4.057	0.0003
		Brazil - United Kingdom	**-0.8042**	**0.050084**	**650**	**-16.057**	**<.0001**
		China - Taiwan	**1.063907**	**0.166119**	**650**	**6.404**	**<.0001**
		China - United Kingdom	-0.78684	0.418080 650	-1.882	0.2368	
	Feeding	China - Egypt	0.998067	0.465917	650	2.142	0.0823
		China - Germany	-0.00951	0.458198	650	-0.021	0.9998
		Egypt - Germany	**-1.00757**	**0.084457**	**650**	**-11.93**	**<.0001**
	Growth	Argentina - Australia	0.682311	0.160088	650	4.262	0.0019
		Argentina - Brazil	**-0.34946**	**0.002148**	**650**	**-162.674**	**<.0001**
		Argentina - Canada	**0.130401**	**0.01421**	**650**	**9.177**	**<.0001**
		Argentina - China	8.684119	2.199248	650	3.949	0.0066
		Argentina - England	**0.394325**	**0.000439**	**650**	**897.647**	**<.0001**
		Argentina - Germany	**0.61099**	**0.000075**	**650**	**8193.528**	**<.0001**
		Argentina - Italy	**0.231616**	**0.015**	**650**	**15.441**	**<.0001**
		Argentina - Portugal	1.498933	0.29715	650	5.044	0.0001
		Argentina - Russia	**-3.31599**	**0.01**	**650**	**-331.602**	**<.0001**
		Argentina - Taiwan	**-0.26449**	**0.00024**	**650**	**-1104.34**	**<.0001**
		Argentina - Turkey	**1.346506**	**0.011537**	**650**	**116.707**	**<.0001**
		Argentina - United Kingdom	**0.416222**	**0.000868**	**650**	**479.575**	**<.0001**
		Argentina - USA	**0.12201**	**0.000018**	**650**	**6637.268**	**<.0001**
		Australia - Brazil	**-1.03177**	**0.160103**	**650**	**-6.444**	**<.0001**

	Comparison	Estimate	Std. Error	df	t.ratio	p.value
	Australia - Canada	-0.55191	0.160718	650	-3.434	0.0405
	Australia - China	8.001808	2.205067	650	3.629	0.0212
	Australia - England	-0.28799	0.160089	650	-1.799	0.8763
	Australia - Germany	-0.07132	0.160088	650	-0.446	1
	Australia - Italy	-0.4507	0.160789	650	-2.803	0.2255
	Australia - Portugal	0.816622	0.337529	650	2.419	0.4671
	Australia - Russia	**-3.9983**	**0.1604**	**650**	**-24.927**	**<.0001**
	Australia - Taiwan	**-0.9468**	**0.160088**	**650**	**-5.914**	**<.0001**
	Australia - Turkey	0.664195	0.160503	650	4.138	0.0031
	Australia - United Kingdom	-0.26609	0.160091	650	-1.662	0.9282
	Australia - USA	-0.5603	0.160088	650	-3.5	0.0327
	Brazil - Canada	**0.479863**	**0.014372**	**650**	**33.39**	**<.0001**
	Brazil - China	9.033581	2.199249	650	4.108	0.0035
	Brazil - England	**0.743787**	**0.002193**	**650**	**339.234**	**<.0001**
	Brazil - Germany	**0.960452**	**0.002149**	**650**	**446.85**	**<.0001**
	Brazil - Italy	**0.581078**	**0.015153**	**650**	**38.348**	**<.0001**
	Brazil - Portugal	**1.848395**	**0.297157**	**650**	**6.22**	**<.0001**
	Brazil - Russia	**-2.96653**	**0.010228**	**650**	**-290.039**	**<.0001**
	Brazil - Taiwan	**0.08497**	**0.002161**	**650**	**39.312**	**<.0001**
	Brazil - Turkey	**1.695968**	**0.011736**	**650**	**144.513**	**<.0001**
	Brazil - United Kingdom	**0.765684**	**0.002317**	**650**	**330.493**	**<.0001**
	Brazil - USA	**0.471473**	**0.002148**	**650**	**219.477**	**<.0001**
	Canada - China	8.553718	2.199294	650	3.889	0.0083
	Canada - England	**0.263924**	**0.014217**	**650**	**18.564**	**<.0001**
	Canada - Germany	**0.480589**	**0.01421**	**650**	**33.82**	**<.0001**
	Canada - Italy	**0.101215**	**0.005361**	**650**	**18.881**	**<.0001**
	Canada - Portugal	1.368532	0.297489	650	4.6	0.0004
	Canada - Russia	**-3.44639**	**0.017376**	**650**	**-198.342**	**<.0001**
	Canada - Taiwan	**-0.39489**	**0.014212**	**650**	**-27.786**	**<.0001**
	Canada - Turkey	**1.216105**	**0.018304**	**650**	**66.439**	**<.0001**
	Canada - United Kingdom	**0.285821**	**0.014237**	**650**	**20.077**	**<.0001**
	Canada - USA	-0.00839	0.01421	650	-0.59	1
	China - England	-8.28979	2.199248	650	-3.769	0.0129
	China - Germany	-8.07313	2.199248	650	-3.671	0.0183
	China - Italy	-8.4525	2.1993	650	-3.843	0.0099
	China - Portugal	-7.18519	2.219232	650	-3.238	0.0736
	China - Russia	**-12.0001**	**2.199271**	**650**	**-5.456**	**<.0001**
	China - Taiwan	-8.94861	2.199248	650	-4.069	0.0041
	China - Turkey	-7.33761	2.199279	650	-3.336	0.0548
	China - United Kingdom	-8.2679	2.199249	650	-3.759	0.0134
	China - USA	-8.56211	2.199248	650	-3.893	0.0082
	England - Germany	**0.216666**	**0.000445**	**650**	**487.057**	**<.0001**
	England - Italy	**-0.16271**	**0.015006**	**650**	**-10.843**	**<.0001**
	England - Portugal	1.104608	0.29715	650	3.717	0.0156
	England - Russia	**-3.71031**	**0.01001**	**650**	**-370.678**	**<.0001**
	England - Taiwan	**-0.65882**	**0.0005**	**650**	**-1318.45**	**<.0001**
	England - Turkey	**0.952181**	**0.011546**	**650**	**82.47**	**<.0001**
	England - United Kingdom	**0.021897**	**0.000972**	**650**	**22.519**	**<.0001**
	England - USA	**-0.27231**	**0.000439**	**650**	**-620.394**	**<.0001**
	Germany - Italy	**-0.37938**	**0.015**	**650**	**-25.292**	**<.0001**
	Germany - Portugal	0.887943	0.29715	650	2.988	0.1451
	Germany - Russia	**-3.92698**	**0.01**	**650**	**-392.692**	**<.0001**
	Germany - Taiwan	**-0.87548**	**0.00025**	**650**	**-3508.19**	**<.0001**
	Germany - Turkey	**0.735515**	**0.011538**	**650**	**63.749**	**<.0001**
	Germany - United Kingdom	**-0.19477**	**0.000871**	**650**	**-223.685**	**<.0001**
	Germany - USA	**-0.48898**	**0.000072**	**650**	**-6746.18**	**<.0001**
Health	Argentina - China	0.48866	0.540316	650	0.904	0.9856
	Argentina - Italy	0.50391	0.360476	650	1.398	0.8582
	Argentina - Poland	-1.49047	2.085571	650	-0.715	0.9966
	Argentina - Portugal	**-0.26183**	**0.020599**	**650**	**-12.711**	**<.0001**
	Argentina - Spain	**-1.17621**	**0.038617**	**650**	**-30.458**	**<.0001**
	Argentina - Sweden	**0.407955**	**0.000154**	**650**	**2644.849**	**<.0001**
	Argentina - USA	0.441558	0.802524	650	0.55	0.9994
	China - Italy	0.01525	0.649526	650	0.023	1
	China - Poland	-1.97913	2.154426	650	-0.919	0.9843
	China - Portugal	-0.75049	0.540709	650	-1.388	0.8627
	China - Spain	-1.66487	0.541695	650	-3.073	0.0455
	China - Sweden	-0.08071	0.540317	650	-0.149	1
	China - USA	-0.0471	0.967464	650	-0.049	1
	Italy - Poland	-1.99438	2.116495	650	-0.942	0.9818
Survival	Australia - China	6.627003	8.399803	650	0.789	0.9937
	Australia - Egypt	14.52147	13.26466	650	1.095	0.9579
	Australia - England	-3.71848	1.015371	650	-3.662	0.0065
	Australia - Finland	-3.48239	1.015371	650	-3.43	0.0148
	Australia - Portugal	-4.24772	1.01538	650	-4.183	0.0009
	Australia - Spain	-3.33619	1.015371	650	-3.286	0.0237
	Australia - Sweden	-0.60643	1.016012	650	-0.597	0.9989
	China - Egypt	7.894465	15.63477	650	0.505	0.9996
	China - England	-10.3455	8.338208	650	-1.241	0.9194
	China - Finland	-10.1094	8.338208	650	-1.212	0.9282

		China - Portugal	-10.8747	8.338209	650	-1.304	0.8973
		China - Spain	-9.9632	8.338208	650	-1.195	0.9333
		China - Sweden	-7.23344	8.338286	650	-0.867	0.9888
		Egypt - England	-18.2399	13.22574	650	-1.379	0.8666
		Egypt - Finland	-18.0039	13.22574	650	-1.361	0.8744
		Egypt - Portugal	-18.7692	13.22574	650	-1.419	0.8484
		Egypt - Spain	-17.8577	13.22574	650	-1.35	0.879
		Egypt - Sweden	-15.1279	13.22579	650	-1.144	0.9468
		England - Finland	**0.236091**	**0.000243**	**650**	**971.966**	**<.0001**
		England - Portugal	**-0.52924**	**0.004299**	**650**	**-123.119**	**<.0001**
		England - Spain	**0.382286**	**0.000386**	**650**	**990.691**	**<.0001**
		England - Sweden	**3.112046**	**0.036099**	**650**	**86.208**	**<.0001**
		Finland - Portugal	**-0.76533**	**0.004292**	**650**	**-178.305**	**<.0001**
		Finland - Spain	**0.146195**	**0.000307**	**650**	**476.258**	**<.0001**
		Finland - Sweden	**2.875955**	**0.036099**	**650**	**79.67**	**<.0001**
Insects Order	**Behavioral**	**Diptera - Lepidoptera**	**-4.259**	**0.697**	**682**	**-6.11**	**<.0001**
		Diptera - Trichoptera	-1.463	0.4055	682	-3.608	0.001
		Lepidoptera - Trichoptera	**2.7959**	**0.567**	**682**	**4.931**	**<.0001**
	Development	Diptera - Lepidoptera	-1.6266	0.5666	682	-2.871	0.0042
	Feeding	Diptera - Hymenoptera	-0.6287	0.3982	682	-1.579	0.1148
	Growth	**Coleoptera - Diptera**	**-11.4739**	**0.8593**	**682**	**-13.353**	**<.0001**
		Coleoptera - Hymenoptera	**-12.8088**	**0.2968**	**682**	**-43.161**	**<.0001**
		Coleoptera - Lepidoptera	**-12.0848**	**0.765**	**682**	**-15.796**	**<.0001**
		Diptera - Hymenoptera	-1.3349	0.9091	682	-1.468	0.4573
		Diptera - Lepidoptera	-0.6109	0.8106	682	-0.754	0.8751
		Hymenoptera - Lepidoptera	0.7239	0.8206	682	0.882	0.8141
	Health	Coleoptera - Diptera	1.7581	0.4364	682	4.029	0.0006
		Coleoptera - Hemiptera	**1.726**	**0.0806**	**682**	**21.415**	**<.0001**
		Coleoptera - Hymenoptera	1.9605	0.4722	682	4.152	0.0004
		Coleoptera - Lepidoptera	0.8669	0.9151	682	0.947	0.8782
		Diptera - Hemiptera	-0.0321	0.4289	682	-0.075	1
		Diptera - Hymenoptera	0.2024	0.6328	682	0.32	0.9977
		Diptera - Lepidoptera	-0.8913	1.0074	682	-0.885	0.9025
		Hemiptera - Hymenoptera	0.2345	0.4652	682	0.504	0.987
		Hemiptera - Lepidoptera	-0.8592	0.9115	682	-0.943	0.8802
		Hymenoptera - Lepidoptera	-1.0936	1.0234	682	-1.069	0.8226
	Survival	Coleoptera - Diptera	-12.2896	13.148	682	-0.935	0.7862
		Coleoptera - Hemiptera	-13.1568	12.7605	682	-1.031	0.7313
		Coleoptera - Hymenoptera	-13.4905	13.0331	682	-1.035	0.7289
		Diptera - Hemiptera	-0.8672	3.1689	682	-0.274	0.9928
		Diptera - Hymenoptera	-1.2009	4.1319	682	-0.291	0.9914
		Hemiptera - Hymenoptera	-0.3337	2.6519	682	-0.126	0.9993
Insect Species	Behavior	Bm - Bd	4.752601	0.567851	653	8	<.0001
		Bm - Chr	1.641174	0.565022	653	3	0.031
		Bm - Dm	**4.36374**	**0.715218**	**653**	**6**	**<.0001**
		Bm - Lb	**2.792843**	**0.565035**	**653**	**5**	**<.0001**
		Bd - Chr	**-3.11143**	**0.056611**	**653**	**-55**	**<.0001**
		Bd - Dm	-0.38886	0.442145	653	-1	0.9044
		Bd - Lb	**-1.95976**	**0.056742**	**653**	**-35**	**<.0001**
		Chr - Dm	**2.722566**	**0.438506**	**653**	**6**	**<.0001**
		Chr - Lb	**1.151669**	**0.003843**	**653**	**300**	**<.0001**
		Dm - Lb	-1.5709	0.438523	653	-4	0.0034
	Development	**Aea - Aeal**	**-0.43352**	**0.001889**	**653**	**-229**	**<.0001**
		Aea - Bm	**-0.82383**	**0.00401**	**653**	**-205**	**<.0001**
		Aea - Chk	**2.729981**	**0.757307**	**653**	**4**	**0.0148**
		Aea - Chr	**-0.97448**	**0.639711**	**653**	**-2**	**0.9118**
		Aea - Chs	**-0.75562**	**0.004011**	**653**	**-188**	**<.0001**
		Aea - Cht	**2.308854**	**0.389457**	**653**	**6**	**<.0001**
		Aea - Cup	**-0.71502**	**0.009948**	**653**	**-72**	**<.0001**
		Aea - Cut	0.002312	0.016084	653	0	1
		Aea - Dm	2.564361	2.367681	653	1	0.992
		Aea - Hi	**0.51524**	**0.00401**	**653**	**128**	**<.0001**
		Aeal - Bm	**-0.39032**	**0.00212**	**653**	**-184**	**<.0001**
		Aeal - Chk	3.163496	0.757299	653	4	0.0017
		Aeal - Chr	-0.54096	0.639702	653	-1	0.999
		Aeal - Chs	**-0.3221**	**0.002123**	**653**	**-152**	**<.0001**
		Aeal - Cht	**2.742369**	**0.389443**	**653**	**7**	**<.0001**
		Aeal - Cup	**-0.2815**	**0.009348**	**653**	**-30**	**<.0001**
		Aeal - Cut	**0.435827**	**0.01572**	**653**	**28**	**<.0001**
		Aeal - Dm	2.997876	2.367678	653	1	0.9741
		Aeal - Hi	**0.948754**	**0.00212**	**653**	**447**	**<.0001**
		Bm - Chk	3.553812	0.757296	653	5	0.0002
		Bm - Chr	-0.15065	0.639699	653	0	1
		Bm - Chs	**0.068213**	**0.0001**	**653**	**681**	**<.0001**
		Bm - Cht	**3.132684**	**0.389437**	**653**	**8**	**<.0001**
		Bm - Cup	**0.108813**	**0.009104**	**653**	**12**	**<.0001**
		Bm - Cut	**0.826142**	**0.015577**	**653**	**53**	**<.0001**
		Bm - Dm	3.388191	2.367677	653	1	0.9403
		Bm - Hi	**1.33907**	**0**	**653**	**6617826**	**<.0001**
		Chk - Chr	-3.70446	0.991318	653	-4	0.0092

	Comparison	Estimate	Std Error	DF	t Ratio	Prob
	Chk - Chs	-3.4856	0.757296	653	-5	0.0003
	Chk - Cht	-0.42113	0.851562	653	0	1
	Chk - Cup	-3.445	0.757351	653	-5	0.0003
	Chk - Cut	-2.72767	0.757456	653	-4	0.015
	Chk - Dm	-0.16562	2.485839	653	0	1
	Chk - Hi	-2.21474	0.757296	653	-3	0.1176
	Chr - Chs	0.218861	0.639699	653	0	1
	Chr - Cht	3.283333	0.748916	653	4	0.0007
	Chr - Cup	0.259462	0.639763	653	0	1
	Chr - Cut	0.976791	0.639888	653	2	0.9107
	Chr - Dm	3.53884	2.452572	653	1	0.9371
	Chr - Hi	1.489718	0.639699	653	2	0.4154
	Chs- Cht	**3.064472**	**0.389437**	**653**	**8**	**<.0001**
	Chs- Cup	0.0406	0.009104	653	4	0.0005
	Chs- Cut	**0.757929**	**0.015577**	**653**	**49**	**<.0001**
	Chs- Dm	3.319979	2.367677	653	1	0.9477
	Chs- Hi	**1.270857**	**0.0001**	**653**	**12692**	**<.0001**
	Cht - Cup	**-3.02387**	**0.389543**	**653**	**-8**	**<.0001**
	Cht - Cut	**-2.30654**	**0.389748**	**653**	**-6**	**<.0001**
	Cht - Dm	0.255507	2.399491	653	0	1
	Cht - Hi	-1.79362	0.389437	653	-5	0.0003
	Cup - Cut	**0.717329**	**0.006473**	**653**	**111**	**<.0001**
	Cup - Dm	3.279378	2.367695	653	1	0.9518
	Cup - Hi	**1.230257**	**0.009104**	**653**	**135**	**<.0001**
	Cut - Dm	2.56205	2.367728	653	1	0.992
	Cut - Hi	**0.512928**	**0.015577**	**653**	**33**	**<.0001**
	Dm - Hi	-2.04912	2.367677	653	-1	0.9987
Fecundity	**Chs- Cup**	**-0.87103**	**0.001084**	**653**	**-804**	**<.0001**
	Chs- Dm	-0.11714	0.347596	653	0	0.9393
	Cup - Dm	0.75389	0.347594	653	2	0.0774
Feeding	Apm - Dm	0.630057	0.398221	653	2	0.1141
Growth	**Aea - Apm**	**3.696534**	**0.296251**	**653**	**12**	**<.0001**
	Aea - Bm	**3.613687**	**0.079247**	**653**	**46**	**<.0001**
	Aea - Chk	10.96323	2.549319	653	4	0.0012
	Aea - Chr	**4.827561**	**0.304063**	**653**	**16**	**<.0001**
	Aea - Chs	**2.966537**	**0.008257**	**653**	**359**	**<.0001**
	Aea - Cht	**3.998374**	**0.115268**	**653**	**35**	**<.0001**
	Aea - Cup	**3.514011**	**0.15876**	**653**	**22**	**<.0001**
	Aea - Cut	**3.627126**	**0.115791**	**653**	**31**	**<.0001**
	Aea - Dm	**3.995259**	**0.46544**	**653**	**9**	**<.0001**
	Aea - Hi	**3.438011**	**0.008105**	**653**	**424**	**<.0001**
	Aea - Tm	**16.50278**	**0.008105**	**653**	**2036**	**<.0001**
	Apm - **Bm**	-0.08285	0.306453	653	0	1
	Apm - Chk	7.266696	2.566449	653	3	0.1693
	Apm - Chr	1.131027	0.424367	653	3	0.2462
	Apm - Chs	-0.73	0.296144	653	-2	0.3641
	Apm - Cht	0.30184	0.317679	653	1	0.9985
	Apm - Cup	-0.18252	0.335913	653	-1	1
	Apm - Cut	-0.06941	0.317869	653	0	1
	Apm - Dm	0.298725	0.551605	653	1	1
	Apm - Hi	-0.25852	0.29614	653	-1	0.9993
	Apm - Tm	**12.80625**	**0.29614**	**653**	**43**	**<.0001**
	Bm - Chk	7.349543	2.550524	653	3	0.1499
	Bm - Chr	1.213874	0.314011	653	4	0.0068
	Bm - Chs	**-0.64715**	**0.078847**	**653**	**-8**	**<.0001**
	Bm - Cht	0.384687	0.139411	653	3	0.2002
	Bm - Cup	-0.09968	0.162677	653	-1	1
	Bm - Cut	0.013439	0.126511	653	0	1
	Bm - Dm	0.381572	0.471999	653	1	0.9997
	Bm - Hi	-0.17568	0.078831	653	-2	0.5294
	Bm - Tm	**12.88909**	**0.078831**	**653**	**164**	**<.0001**
	Chk - Chr	-6.13567	2.567362	653	-2	0.4144
	Chk - Chs	-7.99669	2.549306	653	-3	0.0762
	Chk - Cht	-6.96486	2.551897	653	-3	0.2142
	Chk - Cup	-7.44922	2.554232	653	-3	0.1375
	Chk - Cut	-7.3361	2.551921	653	-3	0.1525
	Chk - Dm	-6.96797	2.591434	653	-3	0.2341
	Chk - Hi	-7.52522	2.549306	653	-3	0.1256
	Chk - Tm	5.53955	2.549306	653	2	0.57
	Chr - Chs	**-1.86102**	**0.303959**	**653**	**-6**	**<.0001**
	Chr - Cht	-0.82919	0.324976	653	-3	0.31
	Chr - Cup	-1.31355	0.342823	653	-4	0.0077
	Chr - Cut	-1.20044	0.325162	653	-4	0.0128
	Chr - Dm	-0.8323	0.555839	653	-1	0.9411
	Chr - Hi	-1.38955	0.303955	653	-5	0.0004
	Chr - Tm	**11.67522**	**0.303955**	**653**	**38**	**<.0001**
	Chs- Cht	**1.031836**	**0.114994**	**653**	**9**	**<.0001**
	Chs- Cup	0.547474	0.15856	653	3	0.029
	Chs- Cut	**0.660588**	**0.115518**	**653**	**6**	**<.0001**
	Chs- Dm	1.028721	0.465372	653	2	0.5425

	Comparison					
	Chs- Hi	**0.471474**	**0.001578**	**653**	**299**	**<.0001**
	Chs- Tm	**13.53624**	**0.001578**	**653**	**8580**	**<.0001**
	Cht - Cup	-0.48436	0.195857	653	-2	0.3589
	Cht - Cut	-0.37125	0.162982	653	-2	0.4936
	Cht - Dm	-0.00312	0.479364	653	0	1
	Cht - Hi	-0.56036	0.114983	653	-5	0.0001
	Cht - Tm	**12.50441**	**0.114983**	**653**	**109**	**<.0001**
	Cup - Cut	0.113114	0.044812	653	3	0.3266
	Cup - Dm	0.481247	0.491638	653	1	0.9981
	Cup - Hi	-0.076	0.158553	653	0	1
	Cup - Tm	**12.98877**	**0.158553**	**653**	**82**	**<.0001**
	Cut - Dm	0.368133	0.47949	653	1	0.9998
	Cut - Hi	-0.18911	0.115507	653	-2	0.8948
	Cut - Tm	**12.87566**	**0.115507**	**653**	**111**	**<.0001**
	Dm - Hi	-0.55725	0.46537	653	-1	0.9891
	Dm - Tm	**12.50752**	**0.46537**	**653**	**27**	**<.0001**
	Hi - Tm	**13.06477**	**0.000003**	**653**	**4133004**	**<.0001**
Health	**Aea - Aeal**	**-0.69912**	**0.117355**	**653**	**-6**	**<.0001**
	Aea - Apm	-0.89544	1.138942	653	-1	0.9988
	Aea - Bm	-2.01059	1.387529	653	-1	0.9111
	Aea - Chk	-0.4027	1.456357	653	0	1
	Aea - Chr	-1.80798	1.040438	653	-2	0.7735
	Aea - Dm	-1.53699	1.291635	653	-1	0.9738
	Aea - Hi	-1.87794	2.020354	653	-1	0.9955
	Aea - Tm	-2.86505	1.043012	653	-3	0.1575
	Aea - Wb	-1.13818	1.040316	653	-1	0.9852
	Aeal - Apm	-0.19632	1.032854	653	0	1
	Aeal - **Bm**	-1.31147	1.301859	653	-1	0.9918
	Aeal - Chk	0.296415	1.374982	653	0	1
	Aeal - Chr	-1.10887	0.923099	653	-1	0.9721
	Aeal - Dm	-0.83787	1.199133	653	-1	0.9995
	Aeal - Hi	-1.17883	1.962506	653	-1	0.9999
	Aeal - Tm	-2.16593	0.925998	653	-2	0.3652
	Aeal - Wb	-0.43907	0.922961	653	0	1
	Apm - Bm	-1.11515	1.028547	653	-1	0.9861
	Apm - Chk	0.492738	1.119664	653	0	1
	Apm - Chr	-0.91255	0.463879	653	-2	0.6225
	Apm - Dm	-0.64155	0.894982	653	-1	0.9994
	Apm - Hi	-0.98251	1.792903	653	-1	0.9999
	Apm - Tm	-1.96961	0.469622	653	-4	0.0013
	Apm - Wb	-0.24275	0.463606	653	-1	1
	Bm - Chk	1.60789	1.371749	653	1	0.9763
	Bm - Chr	0.202605	0.918276	653	0	1
	Bm - Dm	0.473603	1.195425	653	0	1
	Bm - Hi	0.132645	1.960242	653	0	1
	Bm - Tm	-0.85446	0.921191	653	-1	0.9956
	Bm - Wb	0.872407	0.918139	653	1	0.9947
	Chk - Chr	-1.40528	1.019299	653	-1	0.9335
	Chk - Dm	-1.13429	1.274668	653	-1	0.9968
	Chk - Hi	-1.47524	2.009549	653	-1	0.9993
	Chk - Tm	-2.46235	1.021925	653	-2	0.3217
	Chk - Wb	-0.73548	1.019174	653	-1	0.9994
	Chr- Dm	0.270998	0.765712	653	0	1
	Chr - Hi	-0.06996	1.732	653	0	1
	Chr - Tm	**-1.05706**	**0.076603**	**653**	**-14**	**<.0001**
	Chr - Wb	**0.669801**	**0.015909**	**653**	**42**	**<.0001**
	Dm - Hi	-0.34096	1.893577	653	0	1
	Dm - Tm	-1.32806	0.769205	653	-2	0.7801
	Dm - Wb	0.398803	0.765547	653	1	1
	Hi - Tm	-0.9871	1.733547	653	-1	0.9999
	Hi - Wb	0.739761	1.731927	653	0	1
	Tm - Wb	1.726865	0.074933	653	23	<.0001
Survival	Apm - Chr	-3.00846	2.508748	653	-1	0.8945
	Apm - Cht	0.92635	2.596137	653	0	0.9998
	Apm - Cup	-2.79285	2.480319	653	-1	0.9201
	Apm - Dm	7.031575	9.724111	653	1	0.9912
	Apm - Tm	13.58529	12.98635	653	1	0.943
	Apm - Wb	0.319237	2.480483	653	0	1
	Chr - Cht	3.934813	0.854272	653	5	0.0001
	Chr - Cup	0.215612	0.376611	653	1	0.9975
	Chr - Dm	10.04004	9.410005	653	1	0.9375
	Chr - Tm	16.59375	12.75285	653	1	0.8514
	Chr - Wb	**3.3277**	**0.377691**	**653**	**9**	**<.0001**
	Cht - Cup	**-3.7192**	**0.766775**	**653**	**-5**	**<.0001**
	Cht - Dm	6.105225	9.433679	653	1	0.9952
	Cht - Tm	12.65894	12.77033	653	1	0.9559
	Cht - Wb	-0.60711	0.767306	653	-1	0.9858
	Cup - Dm	9.824426	9.402466	653	1	0.9433
	Cup - Tm	16.37814	12.74729	653	1	0.8589
	Cup - Wb	**3.112088**	**0.028542**	**653**	**109**	**<.0001**

		Dm - Tm	6.55371	15.83981	653	0	0.9996
		Dm - Wb	-6.71234	9.402509	653	-1	0.9918
		Tm - Wb	-13.266	12.74732	653	-1	0.9444
Plastic Type	**Behavioral**	**Microplastic - Nanoplastic**	**-4.112**	**0.697**	**689**	**-5.899**	**<.0001**
	Development	Microplastic - Nanoplastic	1.738	1.113	689	1.561	0.1189
	Growth	Microplastic - Nanoplastic	3.227	2.225	689	1.45	0.1475
	Health	Microplastic - Nanoplastic	-0.823	1.822	689	-0.452	0.6516
	Survival	Microplastic - Nanoplastic	-6.447	3.484	689	-1.85	0.0647
Polymer types	**Behavioral**	**HDPE - PA**	**-1.28535**	**0.076592**	**652**	**-16.782**	**<.0001**
		HDPE - PET	**-2.05864**	**0.337129**	**652**	**-6.106**	**<.0001**
		HDPE - PP	**-1.0247**	**0.185755**	**652**	**-5.516**	**<.0001**
		HDPE - PS	-0.91313	1.113989	652	-0.82	0.9829
		HDPE - PU	**-3.10947**	**0.076426**	**652**	**-40.686**	**<.0001**
		HDPE - PVC	-1.23769	0.300441	652	-4.12	0.0008
		PA - PET	-0.77329	0.328391	652	-2.355	0.2199
		PA - PP	0.26065	0.16938	652	1.539	0.7212
		PA - PS	0.37222	1.111376	652	0.335	0.9999
		PA - PU	**-1.82412**	**0.005043**	**652**	**-361.685**	**<.0001**
		PA - PVC	0.04766	0.290602	652	0.164	1
		PET - PP	1.03394	0.369431	652	2.799	0.0774
		PET - PS	1.14552	1.158855	652	0.988	0.9565
		PET - PU	-1.05083	0.328352	652	-3.2	0.0242
		PET - PVC	**0.82095**	**0.129654**	**652**	**6.332**	**<.0001**
		PP - PS	0.11157	1.124186	652	0.099	1
		PP - PU	**-2.08477**	**0.169304**	**652**	**-12.314**	**<.0001**
		PP - PVC	-0.21299	0.336286	652	-0.633	0.9957
		PS - PU	-2.19634	1.111364	652	-1.976	0.4308
		PS - PVC	-0.32457	1.148719	652	-0.283	1
		PU - PVC	**1.87178**	**0.290558**	**652**	**6.442**	**<.0001**
	Development	PA - PE	-0.62695	0.992487	652	-0.632	0.9958
		PA - PLA	1.14918	3.091922	652	0.372	0.9998
		PA - PP	-0.31559	0.341985	652	-0.923	0.9689
		PA - PS	0.66465	1.266258	652	0.525	0.9985
		PA - PU	**-2.06598**	**0.34206**	**652**	**-6.04**	**<.0001**
		PA - PVC	-0.4083	0.749972	652	-0.544	0.9981
		PE - PLA	1.77613	3.211091	652	0.553	0.998
		PE - PP	0.31136	0.931706	652	0.334	0.9999
		PE - PS	1.2916	1.534448	652	0.842	0.9804
		PE - PU	-1.43903	0.931733	652	-1.544	0.7177
		PE - PVC	0.21865	0.291381	652	0.75	0.9893
		PLA - PP	-1.46477	3.072951	652	-0.477	0.9991
		PLA - PS	-0.48453	3.305977	652	-0.147	1
		PLA - PU	-3.21516	3.07296	652	-1.046	0.943
		PLA - PVC	-1.55748	3.144604	652	-0.495	0.9989
		PP - PS	0.98024	1.219203	652	0.804	0.9846
		PP - PU	**-1.75039**	**0.007157**	**652**	**-244.578**	**<.0001**
		PP - PVC	-0.09271	0.667461	652	-0.139	1
		PS - PU	-2.73063	1.219224	652	-2.24	0.2758
		PS - PVC	-1.07295	1.389949	652	-0.772	0.9875
		PU - PVC	1.65768	0.667499	652	2.483	0.167
	Fecundity	PA - PE	-1.02535	0.415903	652	-2.465	0.136
		PA - PET	-1.22294	0.655249	652	-1.866	0.424
		PA - PP	**-1.36194**	**0.003882**	**652**	**-350.843**	**<.0001**
		PA - PS	-0.68419	0.866422	652	-0.79	0.9693
		PA - PVC	-1.20082	0.324384	652	-3.702	0.0032
		PE - PET	-0.19759	0.776077	652	-0.255	0.9999
		PE - PP	-0.33658	0.415885	652	-0.809	0.9658
		PE - PS	0.34116	0.961058	652	0.355	0.9993
		PE - PVC	-0.17547	0.234614	652	-0.748	0.9758
		PET - PP	-0.13899	0.655237	652	-0.212	0.9999
		PET - PS	0.53875	0.412044	652	1.308	0.7809
		PET - PVC	0.02212	0.731126	652	0.03	1
		PP - PS	0.67774	0.866414	652	0.782	0.9705
		PP - PVC	0.16112	0.324361	652	0.497	0.9963
		PS - PVC	-0.51663	0.925139	652	-0.558	0.9936
	Feeding	PET - PP	1.3808	0.572136	652	2.413	0.0424
		PET - PS	1.10636	0.318751	652	3.471	0.0016
		PP - PS	-0.27444	0.654936	652	-0.419	0.9078
	Growth	PE - PES	-1.6229	0.926214	652	-1.752	0.581
		PE - PLA	4.61978	1.76089	652	2.624	0.1206
		PE - PP	-1.50089	0.926214	652	-1.62	0.6691
		PE - PS	0.44859	1.521436	652	0.295	0.9999
		PE - PU	-0.4487	1.006352	652	-0.446	0.9994
		PE - PVC	1.31268	3.12026	652	0.421	0.9996
		PES - PLA	6.24268	1.497619	652	4.168	0.0007
		PES - PP	**0.12201**	**0.000021**	**652**	**5780.935**	**<.0001**
		PES - PS	2.07149	1.409846	652	1.469	0.763
		PES - PU	1.1742	0.393538	652	2.984	0.0464
		PES - PVC	2.93558	3.480619	652	0.843	0.9802
		PLA - PP	-6.12067	1.497619	652	-4.087	0.001

			Estimate	Std. Error	df	t-ratio	p-value
		PLA - PS	-4.17119	2.056825	652	-2.028	0.3979
		PLA - PU	-5.06848	1.548462	652	-3.273	0.0192
		PLA - PVC	-3.3071	3.789138	652	-0.873	0.9765
		PP - PS	1.94948	1.409846	652	1.383	0.811
		PP - PU	1.05219	0.393538	652	2.674	0.1066
		PP - PVC	2.81357	3.480619	652	0.808	0.9841
		PS - PU	-0.89729	1.463741	652	-0.613	0.9964
		PS - PVC	0.8641	3.550815	652	0.243	1
		PU - PVC	1.76138	3.502796	652	0.503	0.9988
	Health	PA - PE	-1.70478	0.492137	652	-3.464	0.0164
		PA - PES	**-1.09731**	**0.053845**	**652**	**-20.379**	**<.0001**
		PA - PET	-0.87606	1.160209	652	-0.755	0.9979
		PA - PLA	**-0.44624**	**0.056808**	**652**	**-7.855**	**<.0001**
		PA - PP	-1.41898	2.889866	652	-0.491	0.9999
		PA - PS	-0.85944	0.545914	652	-1.574	0.8186
		PA - PU	**-1.35881**	**0.059095**	**652**	**-22.994**	**<.0001**
		PA - PVC	-2.43057	0.510892	652	-4.758	0.0001
		PE - PES	0.60747	0.489182	652	1.242	0.9469
		PE - PET	0.82872	1.257969	652	0.659	0.9992
		PE - PLA	1.25854	0.489517	652	2.571	0.201
		PE - PP	0.2858	2.930482	652	0.098	1
		PE - PS	0.84534	0.413007	652	2.047	0.5111
		PE - PU	0.34597	0.489788	652	0.706	0.9987
		PE - PVC	**-0.72579**	**0.022992**	**652**	**-31.567**	**<.0001**
		PES - PET	0.22125	1.158959	652	0.191	1
		PES - PLA	**0.65107**	**0.018108**	**652**	**35.954**	**<.0001**
		PES - PP	-0.32167	2.889364	652	-0.111	1
		PES - PS	0.23787	0.543252	652	0.438	1
		PES - PU	**-0.2615**	**0.02435**	**652**	**-10.739**	**<.0001**
		PES - PVC	-1.33326	0.508046	652	-2.624	0.1785
		PET - PLA	0.42982	1.159101	652	0.371	1
		PET - PP	-0.54292	3.113136	652	-0.174	1
		PET - PS	0.01662	1.279964	652	0.013	1
		PET - PU	-0.48275	1.159215	652	-0.416	1
		PET - PVC	-1.55451	1.265424	652	-1.228	0.9501
		PLA - PP	-0.97274	2.889421	652	-0.337	1
		PLA - PS	-0.4132	0.543553	652	-0.76	0.9978
		PLA - PU	**-0.91257**	**0.030345**	**652**	**-30.073**	**<.0001**
		PLA - PVC	-1.98433	0.508369	652	-3.903	0.0033
		PP - PS	0.55954	2.939991	652	0.19	1
		PP - PU	0.06017	2.889467	652	0.021	1
		PP - PVC	-1.01159	2.93369	652	-0.345	1
		PS - PU	-0.49937	0.543797	652	-0.918	0.9919
		PS - PVC	-1.57113	0.431388	652	-3.642	0.0089
		PU - PVC	-1.07176	0.508629	652	-2.107	0.4692
	Survival	PE - PET	-8.78945	6.736119	652	-1.305	0.6883
		PE - PS	-3.57188	6.496811	652	-0.55	0.982
		PE - PU	-9.7009	6.736121	652	-1.44	0.6019
		PE - PVC	**26.62501**	**3.524972**	**652**	**7.553**	**<.0001**
		PET - PS	5.21758	3.277489	652	1.592	0.5031
		PET - PU	**-0.91144**	**0.005055**	**652**	**-180.321**	**<.0001**
		PET - PVC	**35.41446**	**4.86689**	**652**	**7.277**	**<.0001**
		PS - PU	-6.12902	3.277492	652	-1.87	0.3346
		PS - PVC	**30.19689**	**4.337103**	**652**	**6.962**	**<.0001**
		PU - PVC	**36.32591**	**4.866893**	**652**	**7.464**	**<.0001**
Insect Family	Behavioral	Bombycidae - Chironomidae	1.646997	0.56765	667	3	0.0313
		Bombycidae - Drosophilidae	**4.370413**	**0.718316**	**667**	**6**	**<.0001**
		Bombycidae - Lepidostomatidae	**2.798695**	**0.567665**	**667**	**5**	**<.0001**
		Bombycidae - Sciaridae	**4.757837**	**0.570795**	**667**	**8**	**<.0001**
		Chironomidae - Drosophilidae	**2.723416**	**0.440172**	**667**	**6**	**<.0001**
		Chironomidae - Lepidostomatidae	**1.151698**	**0.004138**	**667**	**278**	**<.0001**
		Chironomidae - Sciaridae	**3.11084**	**0.059835**	**667**	**52**	**<.0001**
		Drosophilidae - Lepidostomatidae	-1.57172	0.440192	667	-4	0.0035
		Drosophilidae - Sciaridae	0.387424	0.444221	667	1	0.9071
		Lepidostomatidae - Sciaridae	**1.959142**	**0.059978**	**667**	**33**	**<.0001**
	Development	Bombycidae - Chironomidae	1.540642	0.794878	667	2	0.2981
		Bombycidae - Culicidae	**0.533418**	**0.069445**	**667**	**8**	**<.0001**
		Bombycidae - Drosophilidae	3.420595	2.376178	667	1	0.6023
		Bombycidae - Stratiomyidae	**1.33907**	**0**	**667**	**89863436**	**<.0001**
		Chironomidae - Culicidae	-1.00722	0.797906	667	-1	0.7144
		Chironomidae - Drosophilidae	1.879953	2.505604	667	1	0.9444
		Chironomidae - Stratiomyidae	-0.20157	0.794878	667	0	0.9991
		Culicidae - Drosophilidae	2.887177	2.377192	667	1	0.743
		Culicidae - Stratiomyidae	**0.805652**	**0.069445**	**667**	**12**	**<.0001**
		Drosophilidae - Stratiomyidae	-2.08153	2.376178	667	-1	0.9057
	Fecundity	**Chironomidae - Culicidae**	**-0.87103**	**0.001173**	**667**	**-743**	**<.0001**
		Chironomidae - Drosophilidae	-0.11816	0.347619	667	0	0.9383
		Culicidae - Drosophilidae	0.752863	0.347617	667	2	0.0779
	Feeding	Apidae - Drosophilidae	0.629632	0.398583	667	2	0.1147
	Growth	Apidae - Bombycidae	-0.53191	0.579295	667	-1	0.9697

		Apidae - Chironomidae	2.772199	1.459212	667	2	0.4811
		Apidae - Culicidae	-0.9412	0.93273	667	-1	0.9519
		Apidae - Drosophilidae	0.292713	0.551661	667	1	0.9984
		Apidae - Stratiomyidae	-0.25486	0.297044	667	-1	0.9784
		Apidae - Tenebrionidae	**12.80991**	**0.297044**	**667**	**43**	**<.0001**
		Bombycidae - Chironomidae	3.304107	1.512751	667	2	0.3055
		Bombycidae - Culicidae	-0.40929	0.658203	667	-1	0.9961
		Bombycidae - Drosophilidae	0.824621	0.680766	667	1	0.8898
		Bombycidae - Stratiomyidae	0.277048	0.497341	667	1	0.9979
		Bombycidae - Tenebrionidae	**13.34182**	**0.497341**	**667**	**27**	**<.0001**
		Chironomidae - Culicidae	-3.7134	1.680124	667	-2	0.2913
		Chironomidae - Drosophilidae	-2.47949	1.502385	667	-2	0.6495
		Chironomidae - Stratiomyidae	-3.02706	1.428659	667	-2	0.3427
		Chironomidae - Tenebrionidae	10.03771	1.428659	667	7	<.0001
		Culicidae - Drosophilidae	1.233914	0.998923	667	1	0.8802
		Culicidae - Stratiomyidae	0.686341	0.884167	667	1	0.9872
		Culicidae - Tenebrionidae	**13.75111**	**0.884167**	**667**	**16**	**<.0001**
		Drosophilidae - Stratiomyidae	-0.54757	0.46486	667	-1	0.9024
		Drosophilidae - Tenebrionidae	**12.5172**	**0.46486**	**667**	**27**	**<.0001**
		Stratiomyidae - Tenebrionidae	**13.06477**	**0.000003**	**667**	**3903017**	**<.0001**
	Health	Apidae - Bombycidae	-1.08866	1.023323	667	-1	0.9639
		Apidae - Chironomidae	0.222988	0.946721	667	0	1
		Apidae - Corixidae	-0.23207	0.466029	667	0	0.9997
		Apidae - Culicidae	0.551798	1.219652	667	0	0.9998
		Apidae - Drosophilidae	-0.63491	0.892798	667	-1	0.9967
		Apidae - Stratiomyidae	-0.96876	1.958032	667	0	0.9997
		Apidae - Tenebrionidae	-1.9585	0.473036	667	-4	0.001
		Bombycidae - Chironomidae	1.31165	1.228456	667	1	0.9632
		Bombycidae - Corixidae	0.856592	0.911047	667	1	0.982
		Bombycidae - Culicidae	1.640461	1.449267	667	1	0.9497
		Bombycidae - Drosophilidae	0.453757	1.187397	667	0	0.9999
		Bombycidae - Stratiomyidae	0.119901	2.108724	667	0	1
		Bombycidae - Tenebrionidae	-0.86984	0.914651	667	-1	0.9808
		Chironomidae - Corixidae	-0.45506	0.824074	667	-1	0.9993
		Chironomidae - Culicidae	0.32881	1.396233	667	0	1
		Chironomidae - Drosophilidae	-0.85789	1.122053	667	-1	0.9948
		Chironomidae - Stratiomyidae	-1.19175	2.072633	667	-1	0.9991
		Chironomidae - Tenebrionidae	-2.18149	0.828057	667	-3	0.1455
		Corixidae - Culicidae	0.783869	1.127106	667	1	0.9971
		Corixidae - Drosophilidae	-0.40284	0.761515	667	-1	0.9995
		Corixidae - Stratiomyidae	-0.73669	1.901764	667	0	0.9999
		Corixidae - Tenebrionidae	-1.72643	0.081116	667	-21	<.0001
		Culicidae - Drosophilidae	-1.1867	1.360248	667	-1	0.9884
		Culicidae - Stratiomyidae	-1.52056	2.210673	667	-1	0.9973
		Culicidae - Tenebrionidae	-2.5103	1.130022	667	-2	0.3401
		Drosophilidae - Stratiomyidae	-0.33386	2.048564	667	0	1
		Drosophilidae - Tenebrionidae	-1.3236	0.765823	667	-2	0.6687
		Stratiomyidae - Tenebrionidae	-0.98974	1.903494	667	-1	0.9996
	Survival	Apidae - Chironomidae	-1.36106	3.112889	667	0	0.998
		Apidae - Corixidae	0.326838	2.698524	667	0	1
		Apidae - Culicidae	-2.78504	2.69835	667	-1	0.9071
		Apidae - Drosophilidae	6.976138	9.766622	667	1	0.9802
		Apidae - Tenebrionidae	13.46235	13.05013	667	1	0.9072
		Chironomidae - Corixidae	1.687897	1.552392	667	1	0.8865
		Chironomidae - Culicidae	-1.42398	1.55209	667	-1	0.942
		Chironomidae - Drosophilidae	8.337198	9.513926	667	1	0.9521
		Chironomidae - Tenebrionidae	14.82341	12.8621	667	1	0.859
		Corixidae - Culicidae	**-3.11188**	**0.030643**	**667**	**-102**	**<.0001**
		Corixidae - Drosophilidae	6.6493	9.38652	667	1	0.9809
		Corixidae - Tenebrionidae	13.13551	12.76815	667	1	0.9082
		Culicidae - Drosophilidae	9.761175	9.38647	667	1	0.9043
		Culicidae - Tenebrionidae	16.24739	12.76811	667	1	0.8
		Drosophilidae - Tenebrionidae	6.48621	15.8471	667	0	0.9985
Exposure Duration	Behavioral	Middle -Short	0.6914	1.637	684	0.422	0.6728
	Development	Long - Middle	-0.7132	1.245	684	-0.573	0.8347
		Long - Short	-1.6482	0.926	684	-1.779	0.1772
		Middle - Short	-0.935	0.833	684	-1.123	0.5004
	Fecundity	Long - Middle	-0.5777	0.213	684	-2.707	0.0191
		Long - Short	0.0289	0.451	684	0.064	0.9977
		Middle - Short	0.6067	0.38	684	1.598	0.2471
	Feeding	**Long - Short**	**1.2004**	**0.222**	**684**	**5.411**	**<.0001**
	Growth	Long - Middle	1.1498	1.697	684	0.678	0.7767
		Long - Short	-0.7679	0.764	684	-1.005	0.5742
		Middle - Short	-1.9177	1.19	684	-1.611	0.2415
	Health	Long - Middle	0.3159	0.673	684	0.469	0.8858
		Long - Short	-1.5593	0.638	684	-2.445	0.0391
		Middle - Short	-1.8751	0.813	684	-2.306	0.0556
	Survival	Long - Middle	-12.506	13.036	684	-0.959	0.6028
		Long - Short	-12.532	12.893	684	-0.972	0.5948
		Middle - Short	-0.0261	1.977	684	-0.013	0.9999

Insect Sex	Development	Female - Male	0.494	0.1432	278	3.448	0.0007
	Feeding	Female - Male	0.593	0.2569	278	2.307	0.0218
	Growth	Female - Male	0.192	0.0964	278	1.994	0.0471
	Health	Female - Male	0.194	0.5398	278	0.36	0.7193
	Survival	**Female - Male**	**36.209**	**7.3782**	**278**	**4.908**	**<.0001**
Plastic concentration	Behavioral	High - Low	-0.622	0.5214	681	-1.193	0.4578
		High - Medium	-0.7681	0.426	681	-1.803	0.1693
		Low - Medium	-0.1461	0.3582	681	-0.408	0.9124
	Development	High - Low	1.0025	0.8581	681	1.168	0.4726
		High - Medium	-0.6609	0.7682	681	-0.86	0.6655
		Low - Medium	-1.6635	1.3519	681	-1.23	0.4356
	Fecundity	High - Low	-0.0376	0.2606	681	-0.144	0.9886
		High - Medium	-0.1703	0.1736	681	-0.981	0.5894
		Low - Medium	-0.1327	0.1788	681	-0.742	0.7386
	Feeding	High - Low	0.3993	0.7748	681	0.515	0.6064
	Growth	High - Low	-0.1703	1.8306	681	-0.093	0.9952
		High - Medium	-1.1671	0.8658	681	-1.348	0.3691
		Low - Medium	-0.9968	1.2176	681	-0.819	0.6916
	Health	High - Low	-0.844	0.2232	681	-3.782	0.0005
		High - Medium	**-0.8611**	**0.0994**	**681**	**-8.667**	**<.0001**
		Low - Medium	-0.0171	0.1408	681	-0.121	0.9919
	Survival	High - Low	6.5078	3.2482	681	2.004	0.0455
Plastic Size	Behavioral	Large - Medium	0.5194	1.044	680	0.497	0.8725
		Large - Small	-0.1666	1.389	680	-0.12	0.9921
		Medium - Small	-0.6860	0.974	680	-0.704	0.761
	Development	Large - Medium	0.3690	1.211	680	0.305	0.9502
		Large - Small	2.2063	1.152	680	1.915	0.1352
		Medium - Small	1.8373	1.443	680	1.274	0.4106
	Fecundity	Large - Medium	0.3712	0.779	680	0.476	0.8825
		Large - Small	0.1748	0.583	680	0.3	0.9517
		Medium - Small	-0.1964	0.813	680	-0.242	0.9683
	Feeding	Large - Medium	0.5519	0.171	680	3.227	0.0038
		Large - Small	0.4777	0.471	680	1.014	0.5681
		Medium - Small	-0.0743	0.532	680	-0.14	0.9893
	Growth	Large - Medium	-0.5526	1.014	680	-0.545	0.8491
		Large - Small	1.4756	2.18	680	0.677	0.777
		Medium - Small	2.0281	1.676	680	1.21	0.4474
	Health	Large - Medium	-0.1102	1.438	680	-0.077	0.9968
		Large - Small	1.3794	0.577	680	2.39	0.0451
		Medium - Small	1.4896	1.577	680	0.944	0.6123
	Survival	**Large - Medium**	**-24.6731**	**1.564**	**680**	**-15.776**	**<.0001**
		Large - Small	-20.6790	4.934	680	-4.191	0.0001
		Medium - Small	3.9940	4.532	680	0.881	0.6523

Table S3. Summary of Hedge's g Effect Sizes, Sample Sizes, and p-Values for Biochemical Markers under Plastic Exposure

Biochemical Marker	Hedge's g	Studies (n)	p-value
GSH	−1.05	4	0.18
MDA	+2.3	4	0.26
ROS	+0.02	4	0.63
SOD	+1.80	4	0.34
TG content	−0.78	10	0.41