**Supplementary Information**

**The combined effects of ocean acidification and heavy metals on marine organisms - A meta-analysis**

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**Table S4.** The effect of pH reductions on the effect size (Hedge's *d*) from continuous random-effect weighted meta-analysis. OA: ocean acidification, HM: heavy metals. \*indicates *p* < 0.05.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Taxa | df | slope | F ratio | *p*-value |
| OA | Coral | 27 | -1.639 | 0.1313 | 0.720 |
| Macroalgae | 116 | -10.025 | 8.533 | 0.004\* |
| Microalgae | 68 | -0.216 | 0.003 | 0.957 |
| Mollusc | 285 | 0.717 | 4.562 | 0.034\* |
|  |  |  |  |  |  |
| HM | Coral | 27 | -21.347 | 6.877 | 0.014\* |
| Macroalgae | 116 | -16.864 | 10.221 | 0.002\* |
| Microalgae | 68 | 4.870 | 0.261 | 0.611 |
| Mollusc | 285 | 0.995 | 4.476 | 0.035\* |
|  |  |  |  |  |  |
| OA × HM | Coral | 27 | -1.436 | 0.038 | 0.848 |
| Macroalgae | 116 | -20.867 | 22.820 | <0.001\* |
| Microalgae | 68 | 12.118 | 2.306 | 0.134 |
| Mollusc | 285 | 2.354 | 16.464 | <0.001\* |

**Table S5.** The effect of heavy metal concentrations (µg L-1) on the effect size (Hedge's *d*) from continuous random-effect weighted meta-analysis. OA: ocean acidification, HM: heavy metals. \*indicates *p* < 0.05.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Heavy metals | df | slope | F ratio | *p*-value |
| OA | Cu | 119 | 0.007 | 2.624 | 0.108 |
| Cd | 139 | 0.0001 | 13.771 | 0.0003\* |
| Ni | 8 | -0.004 | 0.097 | 0.765 |
| Zn | 22 | -0.0003 | 0.0009 | 0.977 |
|  |  |  |  |  |  |
| HM | Cu | 119 | -0.015 | 5.717 | 0.018\* |
| Cd | 139 | -0.00006 | 1.734 | 0.190 |
| Ni | 8 | 0.012 | 0.831 | 0.392 |
| Zn | 22 | -0.006 | 0.065 | 0.802 |
|  |  |  |  |  |  |
| OA × HM | Cu | 119 | -0.0025 | 0.224 | 0.637 |
| Cd | 139 | -0.0001 | 5.120 | 0.025\* |
| Ni | 8 | 0.0016 | 0.008 | 0.933 |
| Zn | 22 | -0.0037 | 0.019 | 0.893 |

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