**Additive effects explain the interactions between microplastics and interacting stressors in freshwater fishes**

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**README for the accompanying dataset CSV**

This document provides information on the dataset “Microplastics and stressors in fw fishes” associated with the publication “Additive effects explain the interactions between microplastics and interacting stressors in freshwater fishes”. The dataset consists of data for a number of interactions (separate rows) collected from a number of interaction studies. Please refer to the manuscript for further details on the methods, analyses and results. Please contact bparker@bournemouth.ac.uk with any questions.

|  |  |
| --- | --- |
| Column heading: | Explanation: |
| Study | An identifier for the study |
| ID | An identifier for the interaction |
| Title | The title of the paper |
| StressorTwoCategory | The categorised interacting stressor |
| StressorTwoSubcategory | The subcategory of the interacting stressor |
| StressorTwo | The exact interacting stressor investigated |
| StressorTwoLevels | The number of levels for the interacting stressor |
| Duration | The duration of the exposure (where groups were not exposed for the whole duration) |
| ResponseDefined | The measured response as defined in the manuscript |
| Response | The response assigned after grouping duplicated/similar responses e.g. “SOD activity” and “Superoxide dismutase activity” were assigned the same response |
| ResponseUnits | The units of the measured response |
| Response.category | The category assigned to the particular response |
| Combination | The interaction between StressorTwoCategory and Response.category  |
| Top.3.response | Whether the resoponse was amongst the most frequently occurring within the Response.category |
| StressorOneLevels | The number of levels for the microplastic exposure |
| StressorOneUnits | The units for the microplastic exposure |
| StressorTwoUnits | The units for the interacting stressor |
| TimeSeries | If the interaction information is from a timeseries |
| Treatmentduration | The overall experiment exposure duration |
| MPPolymer | The polymer of the microplastics used |
| MPSize | The maximum size of the microplastics used |
| MPMorphology | The morphology of the microplastics used |
| EnvironmentallyRelevant | If the microplastic exposure was considered environmentally relevant |
| C\_mean | The mean for the control group |
| C\_sd | The standard deviation for the control group |
| C\_rep | The number of replicates for the control group |
| C\_n | The sample number for the control group |
| S1\_mean | The mean for the microplastic exposure group |
| S1\_sd | The standard deviation for the microplastic exposure group |
| S1\_rep | The number of replicates for the microplastic exposure group |
| S1\_n | The sample number for the microplastic exposure group |
| S2\_mean | The mean for the interacting stressor exposure group |
| S2\_sd | The standard deviation for the interacting stressor exposure group |
| S2\_rep | The number of replicates for the interacting stressor exposure group |
| S2\_n | The sample number for the interacting stressor exposure group |
| S1\_S2\_mean | The mean for the combined exposure group |
| S1\_S2\_sd | The standard deviation for the combined exposure group |
| S1\_S2\_rep | The number of replicates for the combined exposure group |
| S1\_S2\_n | The sample number for the combined exposure group |
| ManualExtraction | If the data were manually extracted or available from the study authors/manuscript |
| FirstAuthor | The name of the first author  |
| Year | The publication year of the manuscript |
| Species | The species of the exposed fish |
| Family | The family of the exposed fish |
| Lifestage | The lifestage of the exposed fish |
| Ecology | The ecology category of the exposed fish |
| AdditiveNullModel | The calculated value of the null additive model |
| Sd\_p | Standard deviation of null expectation |
| n\_p | Sample number of null expectation |
| j | Weighting factor based on sample numbers |
| s | Pooled standard deviation of predicted and combined responses |
| HedgesdAdditive | Calculation of additive Hedges’ d (effect size) |
| VdAdditive | Variation for the effect size (HedgesdAdditive) |
| pooled.sample | The pooled sample number |
| T.value | T-value for the pooled.sample |
| S.error | Standard error for the effect size |
| Conf95 | 95% confidence interval for the effect size |
| lower | The lower confidence interval for the effect size |
| upper | The upper confidence interval for the effect size |
| int.type | The categorised interaction type |