**Supplementary Materials**

**S2 – Formulas for calculating effect sizes in meta-analysis**

* 1. **Data analysis**

Standardized mean difference (d):

Where and are the sample means of the two groups, the high salinity and the low salinity, respectively and the denominator is the within groups standard deviation, pooled across groups (Eq. 2). Hedge’s g corrects for a bias overestimating standardized mean difference for small sample sizes using the correction factor J (Hedges 1981).

and are the Standard Deviation of the two groups and and the sample size.

Variation parameters were converted to standard deviation if necessary and the standardize mean difference (d) and its variance (Vd) computed.

The variance of d for each study was calculated as:

and converted to variance of g as follows:



Meta-analyses weigh the individual effect sizes by the inverse of the effect size variance to account for the precision of each study (Eq. 5).

Calculation of effect size from correlation coefficient (r) was only necessary for a couple of datapoints: