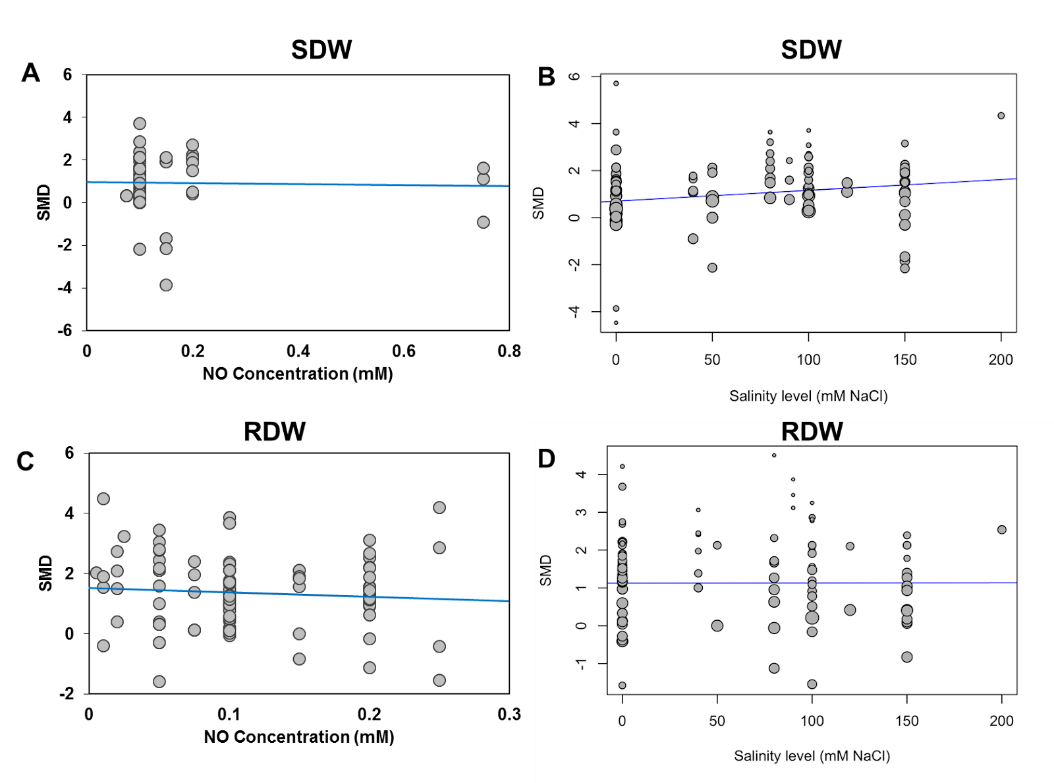
**Supplementary files**

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**Supplementary Figure S1:** Effects of different concentrations of NO and salinity on SDW (A, B) and RDW (C, D) of different plant species.

**Supplementary Table 1:** List of published research articles used for data extraction in this meta-analysis.

1. Adamu TA, Mun BG, Lee SU, Hussain A, Yun BW. Exogenously applied nitric oxide enhances salt tolerance in rice (Oryza sativa L.) at seedling stage. Agronomy. 2018 Dec;8(12):276.
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**Supplementary Table 2:** Comparative effects of different salinity levels on shoot and root biomass production in NO-treated plants

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Parameters** | **Salinity level** | **SMD** | **L95%CI** | **U95%CI** | **p-value** | **Welch t-test**  *p*=0.661 |
| **SDW** | Low salinity | 0.6818 | 0.1430 | 1.2207 | 0.0150 | *p*=0.697 |
|  | Moderate salinity | 0.9566 | 0.6227 | 1.2905 | <0.0001 | *p*=0.661 |
|  | High salinity | 0.6424 | -0.1474 | 1.4322 | 0.1058 | *p*=0.386 |
| **RDW** | Low salinity | 0.7973 | 0.2274 | 1.3671 | 0.0082 | *p*=0.932 |
|  | Moderate salinity | 0.6001 | 0.0737 | 1.1264 | 0.0268 | *p*=0.418 |
|  | High salinity | 0.7541 | 0.2563 | 1.2519 | 0.0048 |  |

**Supplementary Table 3:** Heterogeneity statistics for the growth-related traits summary effect sizes under non-saline and saline stress conditions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Para-meters** | **Salinity level** | ***tau2*** | ***tau*** | ***I2*** | **H** | **Q; d.f.**  ***p* value** |
| **RL** | **Non-saline** | 0.8382  [0.2671; 13.5334] | 0.9155  [0.5168; 3.6788] | 51.1%  [17.2%; 71.1%] | 1.43  [1.10; 1.86] | 36.80; 18  0.0056 |
|  | **Saline** | 0.0400  [0.0836; 7.4025] | 0.1999  [0.2892; 2.7208] | 42.1%  [7.7%; 63.7%] | 1.31  [1.04; 1.66] | 43.19; 25  0.0133 |
| **SL** | **Non-saline** | <0.0001  [0.0000; 1.0603] | 0.0016  [0.0000; 1.0297] | 0.0%  [0.0%; 37.1%] | 1.00  [1.00; 1.26] | 28.49; 30  0.5445 |
|  | **Saline** | <0.0001  [0.0000; 1.4527] | 0.0008  [0.0000; 1.2053] | 21.0%  [0.0%; 42.4%] | 1.13  [1.00; 1.32] | 81.00; 64  0.0743 |
| **SDW** | **Non-saline** | <0.0001  [0.0132; 2.0166] | 0.0019  [0.1147; 1.4201] | 31.2%  [1.9%; 51.7%] | 1.21  [1.01; 1.44] | 69.75; 48  0.0218 |
|  | **Saline** | 0.6198  [0.3832; 1.8339] | 0.7872  [0.6190; 1.3542] | 42.0%  [25.0%; 55.2%] | 1.31  [1.15; 1.49] | 148.34; 86  <0.0001 |
| **RDW** | **Non-saline** | 0.2915  [0.1037; 1.6143] | 0.5399  [0.3220; 1.2706] | 36.0%  [10.1%; 54.4%] | 1.25  [1.05; 1.48] | 79.67; 51  0.0063 |
|  | **Saline** | 0.3631  [0.1851; 1.6035] | 0.6026  [0.4303; 1.2663] | 35.4%  [14.6%; 51.1%] | 1.24  [1.08; 1.43] | 119.12; 77  0.0015 |
| **Yield** | **Non-saline** | 0  [<0.00; <0.00] | 0  [<0.000; <0.000] | 0.0%  [0.0%; 0.0%] | 1.00  [1.00; 1.00] | 3.82; 24  1.0000 |
|  | **Saline** | < 0.0001  [0.3851; 5.4415] | 0.0027  [0.6205; 2.3327] | 45.9%  [19.1%; 63.9%] | 1.36  [1.11; 1.66] | 61.04; 33  0.0021 |

Q, total heterogeneity; *p*, significance of Q heterogeneity; *I2*, percentage of heterogeneity due to true variation in effect sizes.