**Table S1** Comparative analysis of leaf photosynthetic characteristics, chlorophyll fluorescence characteristics, and leaf element content between *E. nutans* and *P. anserina* under different warming years. \*\* indicates significant differences among different years, species and treatments at the level of *p* < 0.05, and ns indicates not significant. *P*n: net photosynthetic rate, *T*r: transpiration rate, *g*s: stomatal conductance, LUE: light use efficiency, *F*v/*F*m: maximum photochemical efficiency of PSII, *yield*: effective photochemical efficiency, *q*P: photochemical quenching, *q*N: non-photochemical quenching (*q*N), TC: total carbon content, TN: total nitrogen content, TP: total phosphorus contents, NP: the N:P ratios.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Significance | *P*n | *T*r | *g*s | LUE | *F*v/*F*m | *Yield* | *qP* | *qN* | TC | TN | TP | NP |
| years | \*\* | \*\* | \*\* | \*\* | \*\* | \*\* | ns | ns | \*\* | ns | \*\* | \*\* |
| treatments | ns | ns | ns | \*\* | \*\* | ns | \*\* | ns | ns | \*\* | \*\* | \*\* |
| species | \*\* | \*\* | \*\* | ns | \*\* | \*\* | ns | \*\* | \*\* | ns | ns | ns |
| years\* treatments | ns | ns | ns | \*\* | \*\* | ns | ns | ns | ns | \*\* | ns | ns |
| years\*species | ns | \*\* | \*\* | ns | \*\* | \*\* | ns | ns | ns | ns | ns | ns |
| treatments\*species | ns | ns | ns | ns | ns | ns | ns | ns | ns | ns | ns | ns |
| years\*species\* treatments | \*\* | \*\* | ns | \*\* | \*\* | ns | ns | ns | ns | ns | ns | \*\* |