**SUPPLEMENTARY MATERIAL**

**Table S1**. ANOVA results for ecophysiological responses of *Lessonia spicata* (*p* < 0.05). Results considered were *Fv/Fm*, ETRmax, Carbon, Nitrogen, Chlorophyll *a*, Chlorophyll *c*, Carotenoids, phenolic compounds, DPPH, H2O2, and TBARS, under daily cycle experiments during Autumn, Winter, Spring, and Summer between 2019 and 2020 in Valparaíso Bay.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  | ***Lessonia spicata*** | | |
|  |  | ***df*** | ***MS*** | ***F*** | ***P*** |
| ***Fv/Fm*** | *Season (s)* | 3 | 0.0006 | 1.9 |  |
|  | *Hour (h)* | 4 | **0.0154** | **44.1** | **\*\*** |
|  | *s\*h* | 12 | **0.0078** | **2.2** | **\*\*** |
|  | *Res* | 100 | **0.0035** |  |  |
| **ETRmax** | *Season (s)* | 3 | **15366.4** | **112.2** | **\*\*** |
|  | *Hour (h)* | 4 | **3126.1** | **22.8** | **\*\*** |
|  | *s\*h* | 12 | **1342.4** | **10.0** | **\*\*** |
|  | *Res* | 100 | 137.1 |  |  |
| **NPQmax** | *Season (s)* | 3 | **1.301** | **14.6** | **\*\*** |
|  | *Hour (h)* | 4 | **1.401** | **15.8** | **\*\*** |
|  | *s\*h* | 12 | **1.201** | **14.2** | **\*\*** |
|  | *Res* | 100 | 0.865 |  |  |
| **Carbon** | *Season (s)* | 3 | **547** | **5.31** | **\*\*** |
|  | *Hour (h)* | 2 | 11 | 0.10 |  |
|  | *s\*h* | 6 | **177** | **1.72** | **\*\*** |
|  | *Res* | 24 | **103** |  |  |
| **Nitrogen** | *Season (s)* | 3 | **67.30** | **55.64** | **\*\*** |
|  | *Hour (h)* | 2 | **4.88** | **4.03** | **\*\*** |
|  | *s\*h* | 6 | **2.14** | **1.77** | **\*\*** |
|  | *Res* | 24 | **1.21** |  |  |
| **Chlorophyll *a*** | *Season (s)* | 3 | **0.287** | **28.952** | **\*\*** |
|  | *Hour (h)* | 2 | 0.019 | 1.983 |  |
|  | *s\*h* | 6 | 0.005 | 0.509 |  |
|  | *Res* | 24 | 0.009 |  |  |
| **Chlorophyll *c*** | *Season (s)* | 3 | **0.001** | **12.782** | **\*\*** |
|  | *hour (h)* | 2 | **0.002** | **14.689** | **\*\*** |
|  | *s\*h* | 6 | **0.001** | **3.796** | **\*\*** |
|  | *Res* | 24 | 0.001 |  |  |
| **Carotenoids** | *Season (s)* | 3 | **0.126** | **92.170** | **\*\*** |
|  | *hour (h)* | 2 | 0.009 | 0.710 |  |
|  | *s\*h* | 6 | **0.011** | **8.480** | **\*\*** |
|  | *Res* | 24 | 0.001 |  |  |
| **Phenolic Compounds** | *Season (s)* | 3 | **145.723** | **184.197** | **\*\*** |
|  | *Hour (h)* | 2 | **25.110** | **31.746** | **\*\*** |
|  | *s\*h* | 6 | **11.041** | **13.957** | **\*\*** |
|  | *Res* | 24 | 0.791 |  |  |
| **DPPH** | *Season (s)* | 3 | **88.6** | **17.70** | **\*\*** |
|  | *Hour (h)* | 2 | **43.5** | **8.69** | **\*\*** |
|  | *s\*h* | 6 | **58.7** | **11.73** | **\*\*** |
|  | *Res* | 24 | 5.0 |  |  |
| **H2O2** | *Season (s)* | 3 | **0.313** | **90.404** | **\*\*** |
|  | *Hour (h)* | 2 | **0.030** | **8.664** | **\*\*** |
|  | *s\*h* | 6 | 0.002 | **0.734** | **\*\*** |
|  | *Res* | 24 | 0.003 |  |  |
| **TBARS** | *Season (s)* | 3 | **10.305** | **64.180** | **\*\*** |
|  | *Hour (h)* | 2 | **1.012** | **6.304** | **\*\*** |
|  | *s\*h* | 6 | 0.625 | **3.891** | **\*\*** |
|  | *Res* | 24 | 0.161 |  |  |

*Res: Residual*