Supplementary Material

Supplementary Table 1. Effect of ALAN on leaf functional traits and herbivory of *Styphnolobium japonicum* (L.) Schott. All variables in the table except herbivory were standardized in linear mixed model, and herbivory utilized a generalized linear mixed model.

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| --- | --- | --- | --- |
| **Variables** | **Mean ± SE** | **t-value** | ***p*-value** |
| **LN\_ TP** | **-0.221 ± 0.006** | **-3.765** | **0.000** |
| Tannin | 0.008 ± 0.008 | 1.102 | 0.274 |
| **N** | **-0.010 ± 0.005** | **-1.999** | **0.049** |
| C | 0.007 ± 0.005 | -1.343 | 0.183 |
| CNratio | 0.008 ± 0.005 | 1.694 | 0.094 |
| LWC | 0.120 ± 0.009 | 1.368 | 0.175 |
| **Leaf toughness** | **0.320 ± 0.102** | **3.131** | **0.002** |
| LN\_ Leaf size | -0.008 ± 0.104 | -0.818 | 0.415 |
| LN\_SLA | 0.002 ± 0.104 | 0.226 | 0.821 |
| **Herbivory** | **-0.408 ± 0.148** | **-2.75** | **0.006** |

Note. Bold coefficients indicate *p*＜.05.

Supplementary Table 2. Effect of ALAN on leaf functional traits and herbivory of *Fraxinus pennsylvanica*. All variables in the table except herbivory were standardized in linear mixed model, and herbivory utilized a generalized linear mixed model.

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| --- | --- | --- | --- |
| **Variables** | **Mean ± SE** | **t-value** | ***p*-value** |
| LN\_ TP | 0.006 ± 0.005 | 1.129 | 0.263 |
| **Tannin** | **-0.180 ± 0.003** | **-5.952** | **0.000** |
| **N** | **0.159 ± 0.004** | **4.305** | **0.000** |
| C | -0.002 ± 0.005 | -0.482 | 0.631 |
| **LN\_ CNratio** | **-0.142 ± 0.003** | **-4.187** | **0.000** |
| LWC | -0.147 ± 0.010 | -1.508 | 0.135 |
| **LN\_ Leaf toughness** | **0.241 ± 0.104** | **2.327** | **0.022** |
| **LN\_ Leaf size** | **-0.204 ± 0.009** | **-2.183** | **0.032** |
| LN\_SLA | -0.010 ± 0.101 | -0.985 | 0.327 |
| **Herbivory** | **-0.238 ± 0.120** | **-1.986** | **0.047** |

Note. Bold coefficients indicate *p*＜.05.

Supplementary Table 3. Effects of plant functional traits on herbivory under *Styphnolobium japonicum* (L.) Schott. Only the optimal linear mixed model was shown. All independent variables in the model are standardized.

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| --- | --- | --- | --- |
| Variables | Mean ± SE | z-value | *p*-value |
| **C** | **-0.128 ± 0.056** | **-2.28** | **0.023** |
| **N** | **0.193 ± 0.059** | **3.29** | **0.001** |
| **Leaf toughness** | **-0.067 ± 0.031** | **-2.12** | **0.034** |

Note. Bold coefficients indicate *p*＜.05.

Supplementary Table 4. Effects of plant functional traits and their interactions with ALAN on herbivory under *Styphnolobium japonicum* (L.) Schott. Only the optimal linear mixed model was shown. All independent variables in the model are standardized.

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| --- | --- | --- | --- |
| Variables | Mean ± SE | z-value | *p*-value |
| **SLA \* ALAN intensity** | **-0.151 ± 0.038** | **-4.008** | **0.000** |

Note. Bold coefficients indicate *p*＜.05.

Supplementary Table 5. Effects of plant functional on herbivory under *Fraxinus pennsylvanica*. Only the optimal linear mixed model was shown. All independent variables in the model are standardized.

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| --- | --- | --- | --- |
| Variables | Mean ± SE | z-value | *p*-value |
| **Leaf toughness** | **-0.086 ± 0.269** | **-3.198** | **0.001** |

Note. Bold coefficients indicate *p*＜.05.

Supplementary Table 6. Effects of plant functional traits and their interactions with ALAN on herbivory under *Fraxinus pennsylvanica*. Only the optimal linear mixed model was shown. All independent variables in the model are standardized.

|  |  |  |  |
| --- | --- | --- | --- |
| Variables | Mean ± SE | z-value | *p*-value |
| **SLA \* ALAN intensity** | **-0.067 ± 0.028** | **-2.384** | **0.017** |

Note. Bold coefficients indicate *p*＜.05.