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| **Supplementary Table 3,** Descriptive quantitative data of leaf vegetative morphometry with One-way ANOVA results showing the significant morphological traits at each taxa. Mean ± StDev /Min-max.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Taxa / Leaf Trait** | **Lamina length** | **Lamina width** | **Laminar ratio** | **Laminar Area**  |
| *Dittrichia viscosa* | 4.87 ± 1.366**efg** //3.81 - 7.25 | 0.8± 0.509**fgh** //0.44 - 1.6 | 6.34± 1.805**efg**  //3.99 - 8.66 | 3.52 ± 2.83**hi** //1.36 - 7.99 |
| *Pulicaria dysenterica* | 5.13 ± 0.149**defg /**/5 - 5.29 | 1.6 ± 0.056**bcde** //1.6 - 1.7 | 0.3 ± 0.037**defg** //0.32 - 0.39 | 6.75 ± 0.036**cdefgh** //6.74 - 6.8 |
| *Cylindrocline commersonii* | 3.86 ± 0.0324**efghi** /3.84 - 3.9 | 1.3± 0.48**cdefgh** //1.05 - 1.9 | 0.28 ± 0.0138**efghi** //0.27 - 0.3 | 2.76 ± 0.0301**ghi**//2.75 - 2.8 |
| *Pterocaulon pycnostachyum* | 8.23 ± 1.642**bcd** //6.29 - 10.14 | 1.7 ± 0.51**cde** //1 - 2.38 | 5.1 ± 1.661**bcd** //2.67 - 7.5 | 10.12 ± 4.16 **bcdef** //4.69 - 17.08 |
| *Pseudoconyza viscosa* | 3.28 ± 0.73**ghi** //2.3 - 4.55 | 1.3 ± 0.305**ef** //0.91 - 1.79 | 2.5± 0.588**ghi** //1.8 - 3.73 | 2.9 ± 0.947**hi** //1.72 - 4.32 |
| *Laggera alata* | 5.1 ± 0.32**ef** //4.66 - 5.54 | 1.4 ± 0.354**cde** //1.02 - 2.03 | 3.7 ± 0.856**ef** //2.3 - 4.73 | 5.55 ± 1.417**efgh /**/3.65 - 6.88 |
| *Doellia bovei* | 6.4 ± 0.88**cdef** //5.41 - 7.04 | 0.64± 0.162**h** //0.47 - 0.79 | 10.1 ± 1.287**cdef** //8.89 - 11.46 | 2.93 ± 1.20**ghi** //1.55 - 3.66 |
| *Sphaeranthus indicus* | 3.7 ± 0.34**ef**ghi //3.52 - 4.12 | 1.13 ± 0.405**efgh** //0.91 - 1.61 | 3.4 ± 0.765**efghi** //2.57 - 3.89 | 3.141 ± 1.513**ghi** //1.89 - 4.82 |
| *Sphaeranthus suaveolens* | 3.8 ± 0.67**efghi** //3.14 - 4.76 | 1.19± 0.13**efgh** //1 - 1.32 | 3.2 ± 0.511**efghi** //2.8 - 3.98 | 2.9 ± 0.777**ghi** //1.81 - 3.54 |
| *Geigeria alata* | 5.0 ± 0.877**efg** //3.85 - 6.09 | 1.28 ± 0.193**defg** //1.06 - 1.56 | 3.8 ± 0.343**efg** //3.6 - 4.46 | 4.74 ± 1.315**fghi** //3.01 - 6.54 |
| *Pegolettia senegalensis* | 1.9 ± 0.797**j** //0.86 - 3.26 | 0.26 ± 0.059**i** //0.19 - 0.34 | 7.61± 3.35 **j** //3.84 - 12.61 | 0.42 ± 0.1829 **j** //0.13 - 0.67 |
| *Tessaria integrifolia* | 4.7 ± 0.024**efgh /**/4.76 - 4.8 | 1.75 ± 0.035**bcde** //1.74 - 1.8 | 0.34± 0.039**efgh /**/0.3 - 0.37 | 6.78 ± 0.0147**cdefgh** //6.77 - 6.8 |
| *Pluchea dioscoridis* | 4.4 ± 0.845**efg** //3.1 - 5.8 | 1.69 ± 0.293**cde** //1.22 - 2.11 | 2.64 ± 0.1973**efg** //2.36 - 2.87 | 5.2 ± 1.711**fgh** //2.62 - 8.32 |
| *Pluchea baccharis* | 4.7± 0.667**efg** //3.47 - 5.81 | 1.73± 0.401**cde** //1.07 - 2.63 | 2.8 ± 0.741**efg**  //2.21 - 4.8 | 6.7 ± 2.068**defg**//3.96 - 10.86 |
| *Pluchea camphorata* | 11.6 ± 3.07**ab** //8.3 - 18.14 | 3.19 ± 1.093**ab** //2.01 - 5.2 | 3.8 ± 1.046**ab** //2.56 - 5.37 | 21.63 ± 11.67**abc** //10.81 - 40.48 |
| *Pluchea carolinensis* | 9.2 ± 1.743**abc** //7.8 - 11.95 | 2.27 ± 0.523**bcd** //1.65 - 2.92 | 4.12 ± 0.34**abc /**/3.79 - 4.74  | 15.24 ± 10.26**bcde** //8.09 - 34.33 |
| *Pluchea foetida* | 8.1 ± 1.773**cd** //6.22 - 11.72 | 2.37± 0.662**bc** //1.62 - 3.74 | 3.47 ± 0.436 **cd** //3.07 - 4.37  | 14.3 ± 7.15bcd //8.23 - 29.29 |
| *Pluchea indica* | 4.1 ± 0.639**efgh** //3.55 - 5.44 | 1.87 ± 0.37**cde** //1.5 - 2.51 | 2.23 ± 0.305**efgh** //1.71 - 2.52 | 5.46± 1.781fgh //3.91 - 8.41 |
| *Pluchea lanceolata* | 3.7 ± 0.452**fghi** //3.36 - 4.57 | 0.78 ± 0.15**gh** //0.52 - 0.98 | 4.98 ± 1.014 **fghi** //3.47 - 6.9 | 2.315 ± 0.627 i //1.61 - 3.53 |
| *Pluchea longifolia* | 12.4 ± 2.54**a** //8.63 - 15.18 | 3.95 ± 0.758**a** //2.99 - 4.9 | 3.18± 0.582**a** //2.34 - 4.08 | 36.81 ± 15.89a //22.93 - 69.93 |
| *Pluchea odorata* | 8.2 ± 0.532**bcd** //7.6 - 9.17 | 4.13 ± 0.578**a** //3.26 - 4.93 | 2.02 ± 0.256**bcd** //1.72 - 2.46 | 21.87 ± 5.27ab //14.25 - 29.43 |
| *Pluchea ovalis* | 2.9 ± 1.005**hij** //1.83 - 4.88 | 1.6 ± 0.65**cde** //0.95 - 2.96 | 1.78 ± 0.1469 **hij** //1.53 - 2.01 | 3.9 ± 2.55ghi //1.3 - 9.02 |
| *Pluchea pteropoda* | 3.3 ± 0.30**efghij** //3.03 - 3.63 | 1.09 ± 0.23**efgh** //0.87 - 1.33 | 3.13 ± 0.383**efghij** //2.74 - 3.5 | 1.95 ± 0.277hi //1.68 - 2.23 |
| *Pluchea sagittalis* | 5.8 ± 1.176**de** //4.19 - 7.86 | 1.23 ± 0.28**efgh** //0.84 - 1.6 | 4.8 ± 1.471**de** //3.35 - 8.16 | 4.75 ± 1.517fghi //2.53 - 7.11 |
| *Pluchea sericea* | 2.4 ± 1.07**ij** //1.85 - 4.06 | 0.28 ± 0.067**i** //0.23 - 0.38 | 8.4 ± 1.596 **ij** //6.82 - 10.65 | 0.62 ± 0.468**j** //0.36 - 1.33 |

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