

## Supplementary Materials

**Table S1.** Contribution of new components to the total variance. For the February and June collection, contribution of components **1–11**, for the November collection, components **1–12**.

| Component | February, Summer |           |                     | June, Winter |           |                     | November, late Spring |           |                     |
|-----------|------------------|-----------|---------------------|--------------|-----------|---------------------|-----------------------|-----------|---------------------|
|           | Eigen value      | %Variance | Accumulated percent | Eigen value  | %Variance | Accumulated percent | Eigen value           | %Variance | Accumulated percent |
| 1         | 5.15876          | 46.898    | 46.898              | 4.50312      | 40.937    | 40.937              | 3.61955               | 30.163    | 30.163              |
| 2         | 2.03656          | 18.514    | 65.412              | 2.54244      | 23.113    | 64.051              | 3.3292                | 27.743    | 57.906              |
| 3         | 1.61984          | 14.726    | 80.138              | 1.90513      | 17.319    | 81.370              | 2.12531               | 17.711    | 75.617              |
| 4         | 0.826696         | 7.515     | 87.653              | 0.861443     | 7.831     | 89.201              | 1.25137               | 10.428    | 86.045              |
| 5         | 0.490514         | 4.459     | 92.113              | 0.431115     | 3.919     | 93.120              | 0.737493              | 6.146     | 92.191              |
| 6         | 0.376118         | 3.419     | 95.532              | 0.294093     | 2.674     | 95.794              | 0.514756              | 4.290     | 96.481              |
| 7         | 0.258066         | 2.346     | 97.878              | 0.189348     | 1.721     | 97.515              | 0.186237              | 1.552     | 98.033              |
| 8         | 0.111761         | 1.016     | 98.894              | 0.166572     | 1.514     | 99.030              | 0.11444               | 0.954     | 98.986              |
| 9         | 0.0956063        | 0.869     | 99.763              | 0.0655956    | 0.596     | 99.626              | 0.0534756             | 0.446     | 99.432              |
| 10        | 0.0253027        | 0.230     | 99.993              | 0.0341867    | 0.311     | 99.937              | 0.0401717             | 0.335     | 99.767              |
| 11        | 0.00077145       | 0.007     | 100.000             | 0.00696071   | 0.063     | 100.000             | 0.0222824             | 0.186     | 99.952              |
| 12        | -                | -         | -                   | -            | -         | -                   | 0.00571465            | 0.048     | 100.000             |

**Table S2.** Comparison between diterpene composition, sex and collection month/season.

| Compound (p value) | Collection month and season of the year |               |                        |
|--------------------|-----------------------------------------|---------------|------------------------|
|                    | February (Summer)                       | June (Winter) | November (late Spring) |
| 1                  | 0.685                                   | 0.789         | 0.046                  |
| 2                  | -                                       | 0.351         | 0.220                  |
| 3                  | 0.232                                   | 0.505         | 0.062                  |
| 4                  | 0.452                                   | 0.689         | 0.854                  |
| 5                  | 0.020                                   | 0.088         | 0.479                  |
| 6                  | 0.127                                   | 0.004         | 0.613                  |
| 7                  | 0.189                                   | -             | 0.447                  |
| 8                  | 0.524                                   | 0.594         | 0.198                  |
| 9                  | 0.132                                   | 0.594         | 0.198                  |
| 10                 | 0.261                                   | 0.124         | 0.423                  |
| 11                 | 1.000                                   | 0.095         | 1.000                  |
| 12                 | 0.165                                   | 0.230         | 0.500                  |

-: not detected.

**Table S3.** Comparison between percent diterpene composition and collection month (season).

| Compound | <i>p</i> value |
|----------|----------------|
| 1        | 0.182          |
| 2        | 0.000          |
| 3        | 0.352          |
| 4        | 0.006          |
| 5        | 0.471          |
| 6        | 0.452          |
| 7        | 0.004          |
| 8        | 0.856          |
| 9        | 0.061          |
| 10       | 0.747          |
| 11       | 0.022          |
| 12       | 0.168          |

**Table S4.** Single compound contribution to the new components according to collection month/season.

| Compound | February, Summer |        |        | June, Winter |        |        | November, late Spring |        |        |        |
|----------|------------------|--------|--------|--------------|--------|--------|-----------------------|--------|--------|--------|
|          | Comp 1           | Comp 2 | Comp 3 | Comp 1       | Comp 2 | Comp 3 | Comp 1                | Comp 2 | Comp 3 | Comp 4 |
| 1        | 0.351            | 0.104  | −0.395 | −0.192       | 0.323  | −0.026 | 0.163                 | 0.454  | 0.225  | 0.217  |
| 2        | -                | -      | -      | -            | -      | -      | 0.160                 | −0.421 | 0.123  | −0.276 |
| 3        | 0.324            | 0.113  | −0.419 | −0.422       | −0.093 | −0.234 | 0.209                 | 0.173  | 0.508  | −0.036 |
| 4        | 0.029            | 0.528  | 0.033  | −0.185       | 0.259  | 0.520  | 0.200                 | −0.359 | 0.070  | 0.412  |
| 5        | 0.331            | −0.235 | 0.230  | 0.347        | 0.298  | 0.087  | 0.274                 | 0.340  | −0.240 | −0.007 |
| 6        | 0.236            | −0.093 | 0.534  | −0.276       | 0.101  | −0.519 | 0.480                 | 0.006  | −0.120 | −0.206 |
| 7        | 0.313            | −0.344 | 0.157  | 0.106        | 0.361  | −0.511 | 0.333                 | 0.327  | −0.275 | 0.001  |
| 8        | −0.374           | 0.234  | 0.066  | 0.381        | −0.290 | 0.002  | −0.410                | −0.012 | −0.242 | −0.427 |
| 9        | −0.418           | −0.157 | −0.045 | 0.363        | −0.289 | −0.249 | −0.283                | −0.065 | −0.219 | 0.648  |
| 10       | −0.303           | −0.274 | 0.242  | 0.365        | 0.107  | −0.231 | 0.277                 | −0.414 | 0.108  | −0.072 |
| 11       | −0.019           | 0.561  | 0.354  | 0.036        | 0.561  | −0.047 | −0.144                | 0.061  | 0.603  | 0.070  |
| 12       | −0.317           | −0.218 | −0.339 | 0.363        | 0.311  | 0.136  | 0.319                 | −0.236 | −0.207 | 0.228  |

Comp: Component.

**Table S5.** Single sample contribution to the new components. Month and season.

| February, Summer |        |        |        | June, Winter |        |        |        | November, late Spring |        |        |        |        |
|------------------|--------|--------|--------|--------------|--------|--------|--------|-----------------------|--------|--------|--------|--------|
| Gender           | Comp 1 | Comp 2 | Comp 3 | Gender       | Comp 1 | Comp 2 | Comp 3 | Gender                | Comp 1 | Comp 2 | Comp 3 | Comp 4 |
| Female           | 1.701  | 0.726  | 1.536  | Female       | 1.343  | 1.438  | −1.247 | Female                | −2.810 | 0.394  | −0.989 | −2.944 |
| Female           | 0.417  | 1.480  | 1.483  | Female       | 1.297  | 2.700  | −1.324 | Female                | −2.080 | 0.025  | 1.568  | 0.228  |
| Female           | −2.033 | 1.704  | −0.050 | Female       | 1.539  | 0.356  | −1.082 | Female                | 0.008  | −1.920 | −0.397 | −0.375 |
| Female           | −0.277 | 2.300  | 1.595  | Female       | −3.826 | 0.072  | −0.555 | Female                | −1.764 | −1.096 | −0.181 | −0.959 |
| Female           | 3.650  | −1.492 | −1.295 | Female       | 1.466  | 0.610  | −0.905 | Female                | −1.447 | −0.724 | −0.188 | 0.995  |
| Female           | −1.317 | 0.557  | −0.811 | Male         | 2.805  | −3.078 | 0.384  | Female                | −1.388 | −0.418 | −0.507 | 1.249  |
| Female           | 2.288  | −1.604 | 0.429  | Male         | 1.818  | −2.239 | 0.627  | Female                | −1.251 | −1.592 | −1.135 | 2.038  |
| Female           | 2.310  | −1.304 | 0.209  | Male         | −1.774 | −0.989 | 0.068  | Female                | 0.948  | 2.010  | −1.592 | 0.287  |
| Male             | −3.063 | −0.963 | −0.239 | Male         | −3.800 | −0.990 | −0.640 | Female                | 3.462  | 2.185  | −0.754 | −0.458 |
| Male             | −3.818 | −1.671 | 0.060  | Male         | −2.361 | −0.216 | −0.380 | Female                | 3.453  | −4.341 | 1.444  | −0.747 |
| Male             | 0.958  | −0.886 | 1.030  | Male         | 0.168  | 2.453  | 2.711  | Male                  | −0.101 | 0.046  | −0.171 | 0.118  |
| Male             | 0.641  | −0.627 | 1.078  | Male         | −0.232 | 0.498  | 3.189  | Male                  | −0.466 | 2.405  | 4.211  | 0.273  |
| Male             | 0.707  | 1.599  | −1.823 | Male         | 0.411  | −0.663 | −0.122 | Male                  | 1.864  | −0.099 | −0.194 | 0.052  |
| Male             | 1.285  | 1.380  | −2.667 | Male         | 1.146  | 0.048  | −0.723 | Male                  | 0.850  | 1.528  | 0.129  | −0.061 |
| Male             | −3.448 | −1.198 | −0.534 | -            | -      | -      | -      | Male                  | 0.722  | 1.596  | −1.244 | 0.305  |

Comp: Component.