

**Supplementary Table S1.** Major components of *Pseudotsuga menziesii* from different geographical locations.

| Compound                       | <i>P.m.g.</i> #1<br>(this work) | <i>P.m.g.</i> #2<br>(this work) | <i>P.m.g.</i> #3<br>(this work) | Washington<br>#1 [34] | Washington<br>#2 [16] | Yellowstone<br>[16] | Washington<br>#3 (APRC) | Argentina<br>(APRC) | New Zealand<br>#1 (APRC) |
|--------------------------------|---------------------------------|---------------------------------|---------------------------------|-----------------------|-----------------------|---------------------|-------------------------|---------------------|--------------------------|
| Santene                        | 1.0                             | 1.3                             | 1.7                             | 0.0                   | 0.0                   | 1.8                 | 0.0                     | 0.1                 | 0.0                      |
| Tricyclene                     | 1.2                             | 1.8                             | 1.8                             | 0.0                   | 0.0                   | 1.0                 | 0.1                     | 0.2                 | 0.1                      |
| $\alpha$ -Pinene               | 6.3                             | 9.1                             | 11.2                            | 6.2                   | 6.4                   | 7.0                 | 12.8                    | 9.8                 | 13.7                     |
| Camphene                       | 15.0                            | 15.2                            | 19.5                            | 0.4                   | 0.4                   | 17.0                | 0.6                     | 1.9                 | 0.6                      |
| Sabinene                       | 0.5                             | 0.2                             | 0.5                             | 14.0                  | 12.9                  | 0.1                 | 4.6                     | 8.8                 | 4.2                      |
| $\beta$ -Pinene                | 3.0                             | 2.6                             | 3.7                             | 25.8                  | 25.5                  | 2.5                 | 37.4                    | 29.5                | 32.7                     |
| $\delta$ -3-Carene             | 0.5                             | 0.3                             | 0.0                             | 0.5                   | 1.8                   | 0.6                 | 3.7                     | 3.0                 | 7.0                      |
| Limonene                       | 3.9                             | 5.4                             | 4.0                             | 0.8                   | 1.6                   | 6.6                 | 1.8                     | 2.2                 | 2.2                      |
| $\beta$ -Phellandrene          | 0.4                             | 0.4                             | 0.4                             | 1.7                   | 2.3                   | 5.1                 | 1.8                     | 2.0                 | 1.7                      |
| ( <i>Z</i> )- $\beta$ -Ocimene | 0.1                             | 0.0                             | 0.0                             | 0.0                   | 0.0                   | 0.0                 | 0.6                     | 0.4                 | 0.2                      |
| ( <i>E</i> )- $\beta$ -Ocimene | 5.4                             | 2.3                             | 0.7                             | 0.0                   | 0.1                   | 0.0                 | 0.4                     | 0.3                 | 0.4                      |
| $\gamma$ -Terpinene            | 0.4                             | 0.2                             | 0.2                             | 5.8                   | 5.4                   | 0.1                 | 4.1                     | 5.9                 | 4.0                      |
| Terpinolene                    | 1.5                             | 1.1                             | 1.0                             | 16.8                  | 14.6                  | 1.2                 | 9.1                     | 12.6                | 9.4                      |
| Camphene hydrate               | 0.8                             | 2.0                             | 0.7                             | 0.0                   | 0.0                   | 2.0                 | 0.0                     | 0.0                 | 0.0                      |
| Borneol                        | 0.7                             | 0.8                             | 1.0                             | 0.0                   | 0.0                   | 1.3                 | 0.1                     | 0.0                 | 0.0                      |
| Terpinen-4-ol                  | 1.4                             | 0.7                             | 0.8                             | 12.2                  | 12.1                  | 0.5                 | 5.4                     | 5.1                 | 6.2                      |
| $\alpha$ -Terpineol            | 0.8                             | 1.0                             | 0.9                             | 1.9                   | 2.4                   | 0.3                 | 2.1                     | 1.0                 | 1.8                      |
| Bornyl acetate                 | 40.2                            | 41.1                            | 38.7                            | 0.1                   | 0.2                   | 44.7                | 0.2                     | 1.1                 | 0.2                      |
| Citronellyl acetate            | 2.3                             | 1.1                             | 0.5                             | 1.9                   | 1.2                   | 0.1                 | 3.7                     | 3.1                 | 3.8                      |
| Geranyl acetate                | 2.7                             | 0.5                             | 0.2                             | 1.9                   | 2.1                   | 0.2                 | 2.1                     | 1.3                 | 2.0                      |

**Supplementary Table S1.** Continued.

| Compound              | New Zealand<br>#2 (APRC) | Arizona<br>#1 [16] | New Mexico<br>[16] | Austria (glauca)<br>[35] | Bulgaria<br>#1 [36] | Bulgaria<br>#2 [37] | Arizona<br>#2 [31] | Romania<br>#1 [[38] | Romania<br>#2 [38] | Serbia<br>[39] |
|-----------------------|--------------------------|--------------------|--------------------|--------------------------|---------------------|---------------------|--------------------|---------------------|--------------------|----------------|
| Santene               | 0.0                      | 2.1                | 1.7                | 0.0                      | 0.0                 | 0.0                 | 0.0                | 0.0                 | 0.0                | 0.0            |
| Tricyclene            | 0.1                      | 2.2                | 2.5                | 0.0                      | 0.0                 | 0.0                 | 3.9                | 0.0                 | 0.0                | 0.0            |
| $\alpha$ -Pinene      | 13.6                     | 9.7                | 4.5                | 6.2                      | 6.5                 | 0.0                 | 15.8               | 3.9                 | 9.2                | 4.9            |
| Camphene              | 0.6                      | 24.6               | 26.4               | 1.0                      | 0.4                 | 0.1                 | 28.5               | 0.2                 | 0.5                | 0.3            |
| Sabinene              | 5.4                      | 0.0                | 0.0                | 15.4                     | 14.9                | 21.0                | 0.0                | 30.0                | 14.2               | 17.9           |
| $\beta$ -Pinene       | 27.4                     | 8.1                | 3.2                | 13.4                     | 20.8                | 39.5                | 14.5               | 7.2                 | 30.3               | 15.2           |
| $\delta$ -3-Carene    | 8.2                      | 0.7                | 0.8                | 4.3                      | 0.0                 | 0.0                 | 0.7                | 0.0                 | 0.0                | 2.3            |
| Limonene              | 2.6                      | 5.0                | 6.0                | 3.2                      | 1.1                 | 0.4                 | 12.2               | 1.7                 | 2.5                | 2.8            |
| $\beta$ -Phellandrene | 1.7                      | 3.4                | 4.3                | 0.3                      | 0.6                 | 0.5                 | 0.0                | 7.2                 | 5.1                | 2.8            |
| (Z)- $\beta$ -Ocimene | 0.2                      | 0.0                | 0.0                | 0.1                      | 0.3                 | 7.1                 | 1.4                | 0.1                 | 0.1                | 0.0            |
| (E)- $\beta$ -Ocimene | 0.3                      | 0.0                | 0.5                | 0.3                      | 0.4                 | 0.3                 | 0.0                | 0.4                 | 0.2                | 0.0            |
| $\gamma$ -Terpinene   | 4.6                      | 0.1                | 0.2                | 4.2                      | 4.4                 | 1.8                 | 0.0                | 0.0                 | 0.0                | 5.5            |
| Terpinolene           | 11.2                     | 1.0                | 1.2                | 7.3                      | 11.8                | 20.2                | 1.7                | 23.2                | 12.7               | 22.7           |
| Camphene hydrate      | 0.0                      | 1.7                | 1.2                | 0.0                      | 0.0                 | 0.0                 | 0.0                | 0.0                 | 0.0                | 0.0            |
| Borneol               | 0.0                      | 2.2                | 1.5                | 0.3                      | 0.0                 | 0.1                 | 0.5                | 0.1                 | 0.2                | 0.0            |
| Terpinen-4-ol         | 7.2                      | 0.2                | 0.2                | 9.2                      | 9.6                 | 0.0                 | 0.3                | 11.5                | 9.2                | 9.2            |
| $\alpha$ -Terpineol   | 1.7                      | 0.2                | 0.8                | 1.4                      | 2.5                 | 1.9                 | 0.4                | 0.6                 | 1.1                | 0.5            |
| Bornyl acetate        | 0.3                      | 32.4               | 28.9               | 3.1                      | 0.0                 | 0.3                 | 0.0                | 0.0                 | 0.0                | 0.0            |
| Citronellyl acetate   | 3.3                      | 0.1                | 0.4                | 5.1                      | 1.5                 | 0.5                 | 0.0                | 0.1                 | 2.1                | 5.5            |
| Geranyl acetate       | 1.4                      | 0.0                | 0.3                | 3.6                      | 0.0                 | 0.3                 | 0.0                | 0.0                 | 0.0                | 0.9            |