

|                   |             |             |            |            |            |            |             |            |            |            |            |            |        |
|-------------------|-------------|-------------|------------|------------|------------|------------|-------------|------------|------------|------------|------------|------------|--------|
|                   |             | 114,620     |            | 114,640    |            | 114,660    |             | 114,680    |            | 114,700    |            | 114,720    |        |
| P_balsamifera     | GGAAAAGAAA  | GAATATCCCTT | TACGTATCCA | CCCAGTTTGT | CAACTTTTTT | GGAAATGATA | CAAAGAAAAGA | TGTCTCTGTT | CACAACAGAA | AAACTCTCCT | CTGATGAATT | GTATAATCAT | 112219 |
| P_trichocarpa     | GGAAAAGAAA  | GAATATCCCTT | TACGTATCCA | CCCAGTTTGT | CAACTTTTTT | GGAAATGATA | CAAAGAAAAGA | TGTCTCTGTT | CACAACAGAA | AAACTCTCCT | CTGATGAATT | GTATAATCAT | 112418 |
| P_euphratica      | GGAAAAGAAA  | GAATATCCCTT | TACGTATCCA | CCCAGTTTGT | CAACTTTTTT | GGAAATGATA | CAAAGAAAAGA | TGTCTCTGTT | CACAACAGAA | AAACTCTCCT | CTGATGAATT | GTATAATCAT | 112170 |
| P_tremula_717-1B4 | GGAAAAGAAA  | GAATATCCCTT | TACGTATCCA | CCCAGTTTGT | CAACTTTTTT | GGAAATGATA | CAAAGAAAAGA | TGTCTCTGTT | CACAACAGAA | AAACTCTCCT | CTGATGAATT | GTATAATCAT | 111669 |
| P_fremontii       | GGAAAAGAAA  | GAATATCCCTT | TACGTATCCA | CCCAGTTTGT | CAACTTTTTT | GGAAATGATA | CAAAGAAAAGA | TGTCTCTGTT | CACAACAGAA | AAACTCTCCT | CTGATGAATT | GTATAATCAT | 112728 |
| P_yunnanensis     | GGAAAAGAAA  | GAATATCCCTT | TACGTATCCA | CCCAGTTTGT | CAACTTTTTT | GGAAATGATA | CAAAGAAAAGA | TGTCTCTGTT | CACAACAGAA | AAACTCTCCT | CTGATGAATT | GTATAATCAT | 111236 |
| P_cathayana       | GGAAAAGAAA  | GAATATCCCTT | TACGTATCCA | CCCAGTTTGT | CAACTTTTTT | GGAAATGATA | CAAAGAAAAGA | TGTCTCTGTT | CACAACAGAA | AAACTCTCCT | CTGATGAATT | GTATAATCAT | 111091 |
| P_tremula_W52     | GGAAAAGAAA  | GAATATCCCTT | TACGTATCCA | CCCAGTTTGT | CAACTTTTTT | GGAAATGATA | CAAAGAAAAGA | TGTCTCTGTT | CACAACAGAA | AAACTCTCCT | CTGATGAATT | GTATAATCAT | 111616 |
| P_alba            | GGAAAAGAAA  | GAATATCCCTT | TACGTATCCA | CCCAGTTTGT | CAACTTTTTT | GGAAATGATA | CAAAGAAAAGA | TGTCTCTGTT | CACAACAGAA | AAACTCTCCT | CTGATGAATT | GTATAATCAT | 111917 |
| Consensus         | GGAAAAGAAA  | GAATATCCCTT | TACGTATCCA | CCCAGTTTGT | CAACTTTTTT | GGAAATGATA | CAAAGAAAAGA | TGTCTCTGTT | CACAACAGAA | AAACTCTCCT | CTGATGAATT | GTATAATCAT |        |
|                   |             | 114,740     |            | 114,760    |            | 114,780    |             | 114,800    |            | 114,820    |            | 114,840    |        |
| P_balsamifera     | TGGAATTATA  | ACAATGAACA  | AAAAAAGAAA | AACCTAAGTA | ACGAGTTTAT | AAATAGAGTA | GAAGTTCTAG  | ATAAGGGGTT | TCGTGTTCTG | AATATACTCG | AAAAAAGAC  | TAGATTGTGT | 112339 |
| P_trichocarpa     | TGGAATTATA  | ACAATGAACA  | AAAAAAGAAA | AACCTAAGTA | ACGAGTTTAT | AAATAGAGTA | GAAGTTCTAG  | ATAAGGGGTT | TCGTGTTCTG | AATATACTCG | AAAAAAGAC  | TAGATTGTGT | 112538 |
| P_euphratica      | TGGAATTATA  | ACAATGAACA  | AAAAAAGAAA | AACCTAAGTA | ACGAGTTTAT | AAATAGAGTA | GAAGTTCTAG  | ATAAGGGGTT | TCGTGTTCTG | AATATACTCG | AAAAAAGAC  | TAGATTGTGT | 112290 |
| P_tremula_717-1B4 | TGGAATTATA  | ACAATGAACA  | AAAAAAGAAA | AACCTAAGTA | ACGAGTTTAT | AAATAGAGTA | GAAGTTCTAG  | ATAAGGGGTT | TCGTGTTCTG | AATATACTCG | AAAAAAGAC  | TAGATTGTGT | 111789 |
| P_fremontii       | TGGAATTATA  | ACAATGAACA  | AAAAAAGAAA | AACCTAAGTA | ACGAGTTTAT | AAATAGAGTA | GAAGTTCTAG  | ATAAGGGGTT | TCGTGTTCTG | AATATACTCG | AAAAAAGAC  | TAGATTGTGT | 112848 |
| P_yunnanensis     | TGGAATTATA  | ACAATGAACA  | AAAAAAGAAA | AACCTAAGTA | ACGAGTTTAT | AAATAGAGTA | GAAGTTCTAG  | ATAAGGGGTT | TCGTGTTCTG | AATATACTCG | AAAAAAGAC  | TAGATTGTGT | 111356 |
| P_cathayana       | TGGAATTATA  | ACAATGAACA  | AAAAAAGAAA | AACCTAAGTA | ACGAGTTTAT | AAATAGAGTA | GAAGTTCTAG  | ATAAGGGGTT | TCGTGTTCTG | AATATACTCG | AAAAAAGAC  | TAGATTGTGT | 111211 |
| P_tremula_W52     | TGGAATTATA  | ACAATGAACA  | AAAAAAGAAA | AACCTAAGTA | ACGAGTTTAT | AAATAGAGTA | GAAGTTCTAG  | ATAAGGGGTT | TCGTGTTCTG | AATATACTCG | AAAAAAGAC  | TAGATTGTGT | 111736 |
| P_alba            | TGGAATTATA  | ACAATGAACA  | AAAAAAGAAA | AACCTAAGTA | ACGAGTTTAT | AAATAGAGTA | GAAGTTCTAG  | ATAAGGGGTT | TCGTGTTCTG | AATATACTCG | AAAAAAGAC  | TAGATTGTGT | 112037 |
| Consensus         | TGGAATTATA  | ACAATGAACA  | AAAAAAGAAA | AACCTAAGTA | ACGAGTTTAT | AAATAGAGTA | GAAGTTCTAG  | ATAAGGGGTT | TCGTGTTCTG | AATATACTCG | AAAAAAGAC  | TAGATTGTGT |        |
|                   |             | 114,860     |            | 114,880    |            | 114,900    |             | 114,920    |            | 114,940    |            | 114,960    |        |
| P_balsamifera     | AATGATGAAA  | CTAAAAAAGA  | ATACCTACCT | AAAATATATG | ATCCTTTTTT | GAGTGGGCTC | TATCGTGGAA  | AAGTCAATTT | TTTTTTTTCA | CCCTCAATCA | TAAATGAAAT | TTCCATAAAA | 112459 |
| P_trichocarpa     | AATGATGAAA  | CTAAAAAAGA  | ATACCTACCT | AAAATATATG | ATCCTTTTTT | GAGTGGGCTC | TATCGTGGAA  | AAGTCAATTT | TTTTTTTTCA | CCCTCAATCA | TAAATGAAAT | TTCCATAAAA | 112658 |
| P_euphratica      | AATGATGAAA  | CTAAAAAAGA  | ATACCTACCT | AAAATATATG | ATCCTTTTTT | GAGTGGGCTC | TATCGTGGAA  | AAGTCAATTT | TTTTTTTTCA | CCCTCAATCA | TAAATGAAAT | TTCCATAAAA | 112410 |
| P_tremula_717-1B4 | AATGATGAAA  | CTAAAAAAGA  | ATACCTACCT | AAAATATATG | ATCCTTTTTT | GAGTGGGCTC | TATCGTGGAA  | AAGTCAATTT | TTTTTTTTCA | CCCTCAATCA | TAAATGAAAT | TTCCATAAAA | 111909 |
| P_fremontii       | AATGATGAAA  | CTAAAAAAGA  | ATACCTACCT | AAAATATATG | ATCCTTTTTT | GAGTGGGCTC | TATCGTGGAA  | AAGTCAATTT | TTTTTTTTCA | CCCTCAATCA | TAAATGAAAT | TTCCATAAAA | 112968 |
| P_yunnanensis     | AATGATGAAA  | CTAAAAAAGA  | ATACCTACCT | AAAATATATG | ATCCTTTTTT | GAGTGGGCTC | TATCGTGGAA  | AAGTCAATTT | TTTTTTTTCA | CCCTCAATCA | TAAATGAAAT | TTCCATAAAA | 111476 |
| P_cathayana       | AATGATGAAA  | CTAAAAAAGA  | ATACCTACCT | AAAATATATG | ATCCTTTTTT | GAGTGGGCTC | TATCGTGGAA  | AAGTCAATTT | TTTTTTTTCA | CCCTCAATCA | TAAATGAAAT | TTCCATAAAA | 111331 |
| P_tremula_W52     | AATGATGAAA  | CTAAAAAAGA  | ATACCTACCT | AAAATATATG | ATCCTTTTTT | GAGTGGGCTC | TATCGTGGAA  | AAGTCAATTT | TTTTTTTTCA | CCCTCAATCA | TAAATGAAAT | TTCCATAAAA | 111856 |
| P_alba            | AATGATGAAA  | CTAAAAAAGA  | ATACCTACCT | AAAATATATG | ATCCTTTTTT | GAGTGGGCTC | TATCGTGGAA  | AAGTCAATTT | TTTTTTTTCA | CCCTCAATCA | TAAATGAAAT | TTCCATAAAA | 112157 |
| Consensus         | AATGATGAAA  | CTAAAAAAGA  | ATACCTACCT | AAAATATATG | ATCCTTTTTT | GAGTGGGCTC | TATCGTGGAA  | AAGTCAATTT | TTTTTTTTCA | CCCTCAATCA | TAAATGAAAT | TTCCATAAAA |        |
|                   |             | 114,980     |            | 115,000    |            | 115,020    |             | 115,040    |            | 115,060    |            | 115,080    |        |
| P_balsamifera     | AATTACATAG  | AGATGCTTTG  | GATAAATAAA | ATTTATCTTA | TCCTTCTTAT | TTCTAATTAT | CAAGAATTTG  | AACCAAAAAT | GGAGGATCGA | ATAAGAATTT | TAAAAATTTT | ATTTGATGCA | 112579 |
| P_trichocarpa     | AATTACATAG  | AGATGCTTTG  | GATAAATAAA | ATTTATCTTA | TCCTTCTTAT | TTCTAATTAT | CAAGAATTTG  | AACCAAAAAT | GGAGGATCGA | ATAAGAATTT | TAAAAATTTT | ATTTGATGCA | 112778 |
| P_euphratica      | AATTACATAG  | AGATGCTTTG  | GATAAATAAA | ATTTATCTTA | TCCTTCTTAT | TTCTAATTAT | CAAGAATTTG  | AACCAAAAAT | GGAGGATCGA | ATAAGAATTT | TAAAAATTTT | ATTTGATGCA | 112530 |
| P_tremula_717-1B4 | AATTACATAG  | AGATGCTTTG  | GATAAATAAA | ATTTATCTTA | TCCTTCTTAT | TTCTAATTAT | CAAGAATTTG  | AACCAAAAAT | GGAGGATCGA | ATAAGAATTT | TAAAAATTTT | ATTTGATGCA | 112029 |
| P_fremontii       | AATTACATAG  | AGATGCTTTG  | GATAAATAAA | ATTTATCTTA | TCCTTCTTAT | TTCTAATTAT | CAAGAATTTG  | AACCAAAAAT | GGAGGATCGA | ATAAGAATTT | TAAAAATTTT | ATTTGATGCA | 113088 |
| P_yunnanensis     | AATTACATAG  | AGATGCTTTG  | GATAAATAAA | ATTTATCTTA | TCCTTCTTAT | TTCTAATTAT | CAAGAATTTG  | AACCAAAAAT | GGAGGATCGA | ATAAGAATTT | TAAAAATTTT | ATTTGATGCA | 111591 |
| P_cathayana       | AATTACATAG  | AGATGCTTTG  | GATAAATAAA | ATTTATCTTA | TCCTTCTTAT | TTCTAATTAT | CAAGAATTTG  | AACCAAAAAT | GGAGGATCGA | ATAAGAATTT | TAAAAATTTT | ATTTGATGCA | 111445 |
| P_tremula_W52     | AATTACATAG  | AGATGCTTTG  | GATAAATAAA | ATTTATCTTA | TCCTTCTTAT | TTCTAATTAT | CAAGAATTTG  | AACCAAAAAT | GGAGGATCGA | ATAAGAATTT | TAAAAATTTT | ATTTGATGCA | 111974 |
| P_alba            | AATTACATAG  | AGATGCTTTG  | GATAAATAAA | ATTTATCTTA | TCCTTCTTAT | TTCTAATTAT | CAAGAATTTG  | AACCAAAAAT | GGAGGATCGA | ATAAGAATTT | TAAAAATTTT | ATTTGATGCA | 112275 |
| Consensus         | AATTACATAG  | AGATGCTTTG  | GATAAATAAA | ATTTATCTTA | TCCTTCTTAT | TTCTAATTAT | CAAGAATTTG  | AACCAAAAAT | GGAGGATCGA | ATAAGAATTT | TAAAAATTTT | ATTTGATGCA |        |
|                   |             | 115,100     |            | 115,120    |            | 115,140    |             | 115,160    |            | 115,180    |            | 115,200    |        |
| P_balsamifera     | ATT--TAGTGG | ATTCCAAGAA  | TAAAAAATTT | GTAAAAAAT  | TACAGAAAT  | AAAAAAGAA  | ATAAGTAAAC  | AAATTCCTCG | ATGGTCATAC | AAATTAATCG | ACGATTTGGA | CAACAAGAG  | 112699 |
| P_trichocarpa     | ATT--TAGTGG | ATTCCAAGAA  | TAAAAAATTT | GTAAAAAAT  | TACAGAAAT  | AAAAAAGAA  | ATAAGTAAAC  | AAATTCCTCG | ATGGTCATAC | AAATTAATCG | ACGATTTGGA | CAACAAGAG  | 112781 |
| P_euphratica      | ATT--TAGTGG | ATTCCAAGAA  | TAAAAAATTT | GTAAAAAAT  | TACAGAAAT  | AAAAAAGAA  | ATAAGTAAAC  | AAATTCCTCG | ATGGTCATAC | AAATTAATCG | ACGATTTGGA | CAACAAGAG  | 112533 |
| P_tremula_717-1B4 | ATT--TAGTGG | ATTCCAAGAA  | TAAAAAATTT | GTAAAAAAT  | TACAGAAAT  | AAAAAAGAA  | ATAAGTAAAC  | AAATTCCTCG | ATGGTCATAC | AAATTAATCG | ACGATTTGGA | CAACAAGAG  | 112149 |
| P_fremontii       | ATT--TAGTGG | ATTCCAAGAA  | TAAAAAATTT | GTAAAAAAT  | TACAGAAAT  | AAAAAAGAA  | ATAAGTAAAC  | AAATTCCTCG | ATGGTCATAC | AAATTAATCG | ACGATTTGGA | CAACAAGAG  | 113208 |
| P_yunnanensis     | ---         | ---         | ---        | ---        | ---        | ---        | ---         | ---        | ---        | ---        | ---        | ---        | 111591 |
| P_cathayana       | ---         | ---         | ---        | ---        | ---        | ---        | ---         | ---        | ---        | ---        | ---        | ---        | 111445 |
| P_tremula_W52     | ---         | ---         | ---        | ---        | ---        | ---        | ---         | ---        | ---        | ---        | ---        | ---        | 111974 |
| P_alba            | ---         | ---         | ---        | ---        | ---        | ---        | ---         | ---        | ---        | ---        | ---        | ---        | 112275 |
| Consensus         | ATT--       | ---         | ---        | ---        | ---        | ---        | ---         | ---        | ---        | ---        | ---        | ---        |        |

