

		114,620		114,640		114,660		114,680		114,700		114,720	
P_balsamifera	GGAAAAAGAAA	GAATATCCTT	TACGTATCCA	CCCAGTTTGT	CAACTTTTTT	GGAATGATA	CAAAGAAAGA	TGTCTCTGTT	CACAACAGAA	AAACTCTCT	CTGATCAATT	GTATAATCAT	112219
P_trichocarpa	GGAAAAAGAAA	GAATATCCTT	TACGTATCCA	CCCAGTTTGT	CAACTTTTTT	GGAATGATA	CAAAGAAAGA	TGTCTCTGTT	CACAACAGAA	AAACTCTCT	CTGATCAATT	GTATAATCAT	112418
P_euphratica	GGAAAAAGAAA	GAATATCCTT	TACGTATCCA	CCCAGTTTGT	CAACTTTTTT	GGAATGATA	CAAAGAAAGA	TGTCTCTGTT	CACAACAGAA	AAACTCTCT	CTGATCAATT	GTATAATCAT	112170
P_tremula_717-184	GGAAAAAGAAA	GAATATCCTT	TACGTATCCA	CCCAGTTTGT	CAACTTTTTT	GGAATGATA	CAAAGAAAGA	TGTCTCTGTT	CACAACAGAA	AAACTCTCT	CTGATCAATT	GTATAATCAT	111669
P_fremontii	GGAAAAAGAAA	GAATATCCTT	TACGTATCCA	CCCAGTTTGT	CAACTTTTTT	GGAATGATA	CAAAGAAAGA	TGTCTCTGTT	CACAACAGAA	AAACTCTCT	CTGATCAATT	GTATAATCAT	112728
P_yunnanensis	GGAAAAAGAAA	GAATATCCTT	TACGTATCCA	CCCAGTTTGT	CAACTTTTTT	GGAATGATA	CAAAGAAAGA	TGTCTCTGTT	CACAACAGAA	AAACTCTCT	CTGATCAATT	GTATAATCAT	111236
P_cathayana	GGAAAAAGAAA	GAATATCCTT	TACGTATCCA	CCCAGTTTGT	CAACTTTTTT	GGAATGATA	CAAAGAAAGA	TGTCTCTGTT	CACAACAGAA	AAACTCTCT	CTGATCAATT	GTATAATCAT	111091
P_tremula_W52	GGAAAAAGAAA	GAATATCCTT	TACGTATCCA	CCCAGTTTGT	CAACTTTTTT	GGAATGATA	CAAAGAAAGA	TGTCTCTGTT	CACAACAGAA	AAACTCTCT	CTGATCAATT	GTATAATCAT	111616
P_alba	GGAAAAAGAAA	GAATATCCTT	TACGTATCCA	CCCAGTTTGT	CAACTTTTTT	GGAATGATA	CAAAGAAAGA	TGTCTCTGTT	CACAACAGAA	AAACTCTCT	CTGATCAATT	GTATAATCAT	111917
Consensus	GGAAAAGAAA	GAATATCCTT	TACGTATCCA	CCCAGTTTGT	CAACTTTTTT	GGAATGATA	CAAAGAAAGA	TGTCTCTGTT	CACAACAGAA	AAACTCTCT	CTGATCAATT	GTATAATCAT	
		114,740		114,760		114,780		114,800		114,820		114,840	
P_balsamifera	TGGAATTATA	ACAATGAAAC	AAAAAAAGAAA	AACCTTAAGTA	ACGAGTTTAT	AAATAGAGTA	GAAGTTCTAG	ATAAGGGGTT	TGTGTTCTG	AATATACTCG	AAAAAAAGAC	TAGATTGTGT	112339
P_trichocarpa	TGGAATTATA	ACAATGAAAC	AAAAAAAGAAA	AACCTTAAGTA	ACGAGTTTAT	AAATAGAGTA	GAAGTTCTAG	ATAAGGGGTT	TGTGTTCTG	AATATACTCG	AAAAAAAGAC	TAGATTGTGT	112538
P_euphratica	TGGAATTATA	ACAATGAAAC	AAAAAAAGAAA	AACCTTAAGTA	ACGAGTTTAT	AAATAGAGTA	GAAGTTCTAG	ATAAGGGGTT	TGTGTTCTG	AATATACTCG	AAAAAAAGAC	TAGATTGTGT	112290
P_tremula_717-184	TGGAATTATA	ACAATGAAAC	AAAAAAAGAAA	AACCTTAAGTA	ACGAGTTTAT	AAATAGAGTA	GAAGTTCTAG	ATAAGGGGTT	TGTGTTCTG	AATATACTCG	AAAAAAAGAC	TAGATTGTGT	111789
P_fremontii	TGGAATTATA	ACAATGAAAC	AAAAAAAGAAA	AACCTTAAGTA	ACGAGTTTAT	AAATAGAGTA	GAAGTTCTAG	ATAAGGGGTT	TGTGTTCTG	AATATACTCG	AAAAAAAGAC	TAGATTGTGT	112848
P_yunnanensis	TGGAATTATA	ACAATGAAAC	AAAAAAAGAAA	AACCTTAAGTA	ACGAGTTTAT	AAATAGAGTA	GAAGTTCTAG	ATAAGGGGTT	TGTGTTCTG	AATATACTCG	AAAAAAAGAC	TAGATTGTGT	111356
P_cathayana	TGGAATTATA	ACAATGAAAC	AAAAAAAGAAA	AACCTTAAGTA	ACGAGTTTAT	AAATAGAGTA	GAAGTTCTAG	ATAAGGGGTT	TGTGTTCTG	AATATACTCG	AAAAAAAGAC	TAGATTGTGT	111211
P_tremula_W52	TGGAATTATA	ACAATGAAAC	AAAAAAAGAAA	AACCTTAAGTA	ACGAGTTTAT	AAATAGAGTA	GAAGTTCTAG	ATAAGGGGTT	TGTGTTCTG	AATATACTCG	AAAAAAAGAC	TAGATTGTGT	111736
P_alba	TGGAATTATA	ACAATGAAAC	AAAAAAAGAAA	AACCTTAAGTA	ACGAGTTTAT	AAATAGAGTA	GAAGTTCTAG	ATAAGGGGTT	TGTGTTCTG	AATATACTCG	AAAAAAAGAC	TAGATTGTGT	112037
Consensus	TGGAATTATA	ACAATGAAAC	AAAAAAAGAAA	AACCTTAAGTA	ACGAGTTTAT	AAATAGAGTA	GAAGTTCTAG	ATAAGGGGTT	TGTGTTCTG	AATATACTCG	AAAAAAAGAC	TAGATTGTGT	
		114,860		114,880		114,900		114,920		114,940		114,960	
P_balsamifera	AATGATGAAA	CTAAAAAAAGA	ATACTTACCT	AAAATATATG	ATCCTTTTT	GAGTGGGCTC	TATGTTGGAA	AAGTCAAATT	TTTTTTTTCA	CCCTCAATCA	TAAAATCAATT	TTCCATAAAA	112459
P_trichocarpa	AATGATGAAA	CTAAAAAAAGA	ATACTTACCT	AAAATATATG	ATCCTTTTT	GAGTGGGCTC	TATGTTGGAA	AAGTCAAATT	TTTTTTTTCA	CCCTCAATCA	TAAAATCAATT	TTCCATAAAA	112658
P_euphratica	AATGATGAAA	CTAAAAAAAGA	ATACTTACCT	AAAATATATG	ATCCTTTTT	GAGTGGGCTC	TATGTTGGAA	AAGTCAAATT	TTTTTTTTCA	CCCTCAATCA	TAAAATCAATT	TTCCATAAAA	112410
P_tremula_717-184	AATGATGAAA	CTAAAAAAAGA	ATACTTACCT	AAAATATATG	ATCCTTTTT	GAGTGGGCTC	TATGTTGGAA	AAGTCAAATT	TTTTTTTTCA	CCCTCAATCA	TAAAATCAATT	TTCCATAAAA	111909
P_fremontii	AATGATGAAA	CTAAAAAAAGA	ATACTTACCT	AAAATATATG	ATCCTTTTT	GAGTGGGCTC	TATGTTGGAA	AAGTCAAATT	TTTTTTTTCA	CCCTCAATCA	TAAAATCAATT	TTCCATAAAA	112968
P_yunnanensis	AATGATGAAA	CTAAAAAAAGA	ATACTTACCT	AAAATATATG	ATCCTTTTT	GAGTGGGCTC	TATGTTGGAA	AAGTCAAATT	TTTTTTTTCA	CCCTCAATCA	TAAAATCAATT	TTCCATAAAA	111476
P_cathayana	AATGATGAAA	CTAAAAAAAGA	ATACTTACCT	AAAATATATG	ATCCTTTTT	GAGTGGGCTC	TATGTTGGAA	AAGTCAAATT	TTTTTTTTCA	CCCTCAATCA	TAAAATCAATT	TTCCATAAAA	111331
P_tremula_W52	AATGATGAAA	CTAAAAAAAGA	ATACTTACCT	AAAATATATG	ATCCTTTTT	GAGTGGGCTC	TATGTTGGAA	AAGTCAAATT	TTTTTTTTCA	CCCTCAATCA	TAAAATCAATT	TTCCATAAAA	111856
P_alba	AATGATGAAA	CTAAAAAAAGA	ATACTTACCT	AAAATATATG	ATCCTTTTT	GAGTGGGCTC	TATGTTGGAA	AAGTCAAATT	TTTTTTTTCA	CCCTCAATCA	TAAAATCAATT	TTCCATAAAA	112157
Consensus	AATGATGAAA	CTAAAAAAAGA	ATACTTACCT	AAAATATATG	ATCCTTTTT	GAGTGGGCTC	TATGTTGGAA	AAGTCAAATT	TTTTTTTTCA	CCCTCAATCA	TAAAATCAATT	TTCCATAAAA	
		114,980		115,000		115,020		115,040		115,060		115,080	
P_balsamifera	ATTACATAG	AGATTCCTTG	GATAAAATAAA	ATTTATCTTA	TCCTTCTTAT	TTCATATTAT	CAAGAATTTC	AACCAAAAT	GGNGGATCGA	ATAAGAATT	TAAAAATT	ATTGATGCA	112579
P_trichocarpa	ATTACATAG	AGATTCCTTG	GATAAAATAAA	ATTTATCTTA	TCCTTCTTAT	TTCATATTAT	CAAGAATTTC	AACCAAAAT	GGNGGATCGA	ATAAGAATT	TAAAAATT	ATTGATGCA	112778
P_euphratica	ATTACATAG	AGATTCCTTG	GATAAAATAAA	ATTTATCTTA	TCCTTCTTAT	TTCATATTAT	CAAGAATTTC	AACCAAAAT	GGNGGATCGA	ATAAGAATT	TAAAAATT	ATTGATGCA	112530
P_tremula_717-184	ATTACATAG	AGATTCCTTG	GATAAAATAAA	ATTTATCTTA	TCCTTCTTAT	TTCATATTAT	CAAGAATTTC	AACCAAAAT	GGNGGATCGA	ATAAGAATT	TAAAAATT	ATTGATGCA	112029
P_fremontii	ATTACATAG	AGATTCCTTG	GATAAAATAAA	ATTTATCTTA	TCCTTCTTAT	TTCATATTAT	CAAGAATTTC	AACCAAAAT	GGNGGATCGA	ATAAGAATT	TAAAAATT	ATTGATGCA	113088
P_yunnanensis	ATTACATAG	AGATTCCTTG	GATAAAATAAA	ATTTATCTTA	TCCTTCTTAT	TTCATATTAT	CAAGAATTTC	AACCAAAAT	GGNGGATCGA	ATAAGAATT	TAAAAATT	ATTGATGCA	111591
P_cathayana	ATTACATAG	AGATTCCTTG	GATAAAATAAA	ATTTATCTTA	TCCTTCTTAT	TTCATATTAT	CAAGAATTTC	AACCAAAAT	GGNGGATCGA	ATAAGAATT	TAAAAATT	ATTGATGCA	111445
P_tremula_W52	ATTACATAG	AGATTCCTTG	GATAAAATAAA	ATTTATCTTA	TCCTTCTTAT	TTCATATTAT	CAAGAATTTC	AACCAAAAT	GGNGGATCGA	ATAAGAATT	TAAAAATT	ATTGATGCA	111974
P_alba	ATTACATAG	AGATTCCTTG	GATAAAATAAA	ATTTATCTTA	TCCTTCTTAT	TTCATATTAT	CAAGAATTTC	AACCAAAAT	GGNGGATCGA	ATAAGAATT	TAAAAATT	ATTGATGCA	112275
Consensus	ATTACATAG	AGATTCCTTG	GATAAAATAAA	ATTTATCTTA	TCCTTCTTAT	TTCATATTAT	CAAGAATTTC	AACCAAAAT	GGNGGATCGA	ATAAGAATT	TAAAAATT	ATTGATGCA	
		115,100		115,120		115,140		115,160		115,180		115,200	
P_balsamifera	ATTATAGTGG	ATTCCAAAGAA	TAAAAAAATT	GTAAAAAAAT	CTACAGAAAT	AAAAAAAGAA	ATAAGTAAAC	AAATTCCTCG	ATGGTCATAC	AAATTAATCG	ACGATTTGGA	ACACAAAGAG	112699
P_trichocarpa	ATT-----	-	-	-	-	-	-	-	-	-	-	-	112781
P_euphratica	ATT-----	-	-	-	-	-	-	-	-	-	-	-	112533
P_tremula_717-184	ATTATAGTGG	ATTCCAAAGAA	TAAAAAAATT	GTAAAAAAAT	CTACAGAAAT	AAAAAAAGAA	ATAAGTAAAC	AAATTCCTCG	ATGGTCATAC	AAATTAATCG	ACGATTTGGA	ACACAAAGAG	112149
P_fremontii	ATTGTAGTGG	ATTCCAAAGAA	TAAAAAAATT	GTAAAAAAAT	CTACAGAAAT	AAAAAAAGAA	ATAAGTAAAC	AAATTCCTCG	ATGGTCATAC	AAATTAATCG	ACGATTTGGA	ACACAAAGAG	113208
P_yunnanensis	-	-	-	-	-	-	-	-	-	-	-	-	111591
P_cathayana	-	-	-	-	-	-	-	-	-	-	-	-	111445
P_tremula_W52	-	-	-	-	-	-	-	-	-	-	-	-	111974
P_alba	-	-	-	-	-	-	-	-	-	-	-	-	112275
Consensus	ATT-----	-	-	-	-	-	-	-	-	-	-	-	

		115,220		115,240		115,260		115,280		115,300		115,320			
P_balsamifera	GGTGAAATG	AAGCAGACCG	GGCAGAGGAT	CATCAGATTTC	GTTCAAGAAA	TGAACCAAAA	ATGGAGGTC	GAATAAGAAT	TTGAAATTTT	TTA-		112792			
P_trichocarpa	-	-	-	-	-	-	-	-	-	-	-	112781			
P_euphratica	-	-	-	-	-	-	-	-	-	-	-	112533			
P_tremula_717-184	GGTGAAATG	AAGCAGACCG	GGCAGAGGAT	CATCAGATTTC	GTTCAAGAAA	ACCCAAACGT	GTAGTAATTI	TTACTGATAA	TCAAGAGAT	CCTGATTCTA	ATACTTATAA	TAATTCCAAA	112269		
P_fremontii	GGTGAAATG	AAGCAGACCG	GGCAGAGGAT	CATCAGATTTC	GTTCAAGAAA	ACCCAAACGT	GTAGTAATTI	TTACTGATAA	TCAAGAGAT	-	-	-	113294		
P_yunnanensis	-	-	-	-	-	-	-	-	-	-	-	111591			
P_cathayana	-	-	-	-	-	-	-	-	-	-	-	111445			
P_tremula_W52	-	-	-	-	-	-	-	-	-	-	-	111974			
P_alba	-	-	-	-	-	-	-	-	-	-	-	112275			
Consensus	-	-	-	-	-	-	-	-	-	-	-	-			
		115,340		115,360		115,380		115,400		115,420		115,440			
P_balsamifera	-	-	-	TTTGTGCA	ATTGCAACAA	AAATGGGTTA	TTTCTTGAAAC	TTAAATTAAATG	AATTGTTAC	AAAAATCAA	-	112859			
P_trichocarpa	-	-	-	-	-	-	-	-	-	-	-	112836			
P_euphratica	-	-	-	-	-	-	-	-	-	-	-	112588			
P_tremula_717-184	ACTAAAGATA	CAACTAATTI	TGATCAAACA	GGCAGAGTGG	CTTGATAAG	TTATTCAACAA	CAATGGGACT	TTCTGTGAGA	TATAATAAG	GGCTCCATGC	GAACAGAAAG	GCGCAAAATA	112389		
P_fremontii	-	-	-	-	-	-	-	-	-	-	-	113345			
P_yunnanensis	-	-	-	-	-	-	-	-	-	-	-	111645			
P_cathayana	-	-	-	-	-	-	-	-	-	-	-	111499			
P_tremula_W52	-	-	-	-	-	-	-	-	-	-	-	111983			
P_alba	-	-	-	-	-	-	-	-	-	-	-	112326			
Consensus	-	-	-	-	-	-	-	-	-	-	-	-			
		115,460		115,480		115,500		115,520		115,540		115,560			
P_balsamifera	-	-	GTITCA	A	-	-	-	-	-	-	-	-	112899		
P_trichocarpa	-	-	GTITCA	A	-	-	-	-	-	-	-	-	112876		
P_euphratica	-	-	GTITCA	A	-	-	-	-	-	-	-	-	112628		
P_tremula_717-184	GCTATTTCGA	AACTGTTCA	AGCAAATTG	CATTCCTCCC	TTTTTTAGA	CAGAATAGAC	AAATTTCTTT	TCTTGTCTTT	TGATACTTCT	GAGCTGATGA	AAATAATTGTT	TATAAAATGG	112509		
P_fremontii	-	-	GTITCA	A	-	-	-	-	-	-	-	-	113385		
P_yunnanensis	-	-	GTITCA	A	-	-	-	-	-	-	-	-	111685		
P_cathayana	-	-	GTITCA	A	-	-	-	-	-	-	-	-	111539		
P_tremula_W52	-	-	GTITCA	A	-	-	-	-	-	-	-	-	112023		
P_alba	-	-	GTITCA	A	-	-	-	-	-	-	-	-	112366		
Consensus	-	-	GTTCATCA	A	-	-	-	-	-	-	-	-	-		
		115,580		115,600		115,620		115,640		115,660		115,680			
P_balsamifera	-	-	GTAATA	GAACCAAAAT	CACAAAGAAG	AA-----	AAAGAAGA	AAAAATGGAT	GAAGAAAATA	ATAAAAAGAT	TAATACATAA	AATAAATATA	ATAACAGATA	AAAAGAGATT	113004
P_trichocarpa	-	-	GTAATA	GAACCAAAAT	CACAAAGAAG	AA-----	AAAGAAGA	AAAAATGGAT	GAAGAAAATA	ATAAAAAGAT	TAATACATAA	AATAAATATA	ATAACAGATA	AAAAGAGATG	112981
P_euphratica	-	-	GTAATA	GAACCAAAAT	CACAAAGAAG	AA-----	AAAGAAGA	AAAAATGGAT	GAAGAAAATA	ATAAAAAGAT	TAATACATAA	AATAAATATA	ATAACAGATA	AAAAGAGATG	112733
P_tremula_717-184	ATGTGTAAAA	AGCAGAAATT	CACAAATTCA	GATTCCTACTT	ATACAGAAAGA	AAAAATGGAT	GAAGAAAATA	ATAAAAAGAT	TAATACATAA	AATAAATATA	ATAACAGATA	AAAAGAGATG	112629		
P_fremontii	-	-	GTAATA	GAACCAAAAT	CACAAAGAAG	AA-----	AAAGAAGA	AAAAATGGAT	GAAGAAAATA	ATAAAAAGAT	TAATACATAA	AATAAATATA	ATAACAGATA	AAAAGAGATG	113491
P_yunnanensis	-	-	-	AAAT	CACAAAGAAG	AA-----	AAAGAAGA	AAAAATGGAT	GAAGAAAATA	ATAAAAAGAT	TAATACATAA	AATAAATATA	ATAACAGATA	AAAAGAGATG	111779
P_cathayana	-	-	-	AAAT	CACAAAGAAG	AA-----	AAAGAAGA	AAAAATGGAT	GAAGAAAATA	ATAAAAAGAT	TAATACATAA	AATAAATATA	ATAACAGATA	AAAAGAGATG	111633
P_tremula_W52	-	-	-	AAAT	CACAAAGAAG	AA-----	AAAGAAGA	AAAAATGGAT	GAAGAAAATA	ATAAAAAGAT	TAATACATAA	AATAAATATA	ATAACAGATA	AAAAGAGATG	112114
P_alba	-	-	-	AAAT	CACAAAGAAG	AA-----	AAAGAAGA	AAAAATGGAT	GAAGAAAATA	ATAAAAAGAT	TAATACATAA	AATAAATATA	ATAACAGATA	AAAAGAGATG	112460
Consensus	-	-	GTAATA	GAAAAAAAT	CACAAAGAAG	AA-----	AAAGAAGA	AAAAATGGAT	GAAGAAAATA	ATAAAAAGAT	TAATACATAA	AATAAATATA	ATAACAGATA	AAAAGAGATG	-
		115,700		115,720		115,740		115,760		115,780		115,800			
P_balsamifera	CGACCAACCTC	CTACATATTT	TATGCCCTTC	CCTGCCAAAGA	AACTCGTAAA	GCCAACTTCA	TTGGTAATTI	CATCAATTAC	TGTCATATCA	AAAAAGAAG	TTAATTCCGC	CAATCTTCCTT	113124		
P_trichocarpa	CGACCAACCTC	CTACATATTT	TATGCCCTTC	CCTGCCAAAGA	AACTCGTAAA	GCCAACTTCA	TTGGTAATTI	CATCAATTAC	TGTCATATCA	AAAAAGAAG	TTAATTCCGC	CAATCTTCCTT	113101		
P_euphratica	CGACCAACCTC	CTACATATTT	TATGCCCTTC	CCTGCCAAAGA	AACTCGTAAA	GCCAACTTCA	TTGGTAATTI	CATCAATTAC	TGTCATATCA	AAAAAGAAG	TTAATTCCGC	CAATCTTCCTT	112853		
P_tremula_717-184	CGACCAACCTC	CTACATATTT	TATGCCCTTC	CCTGCCAAAGA	AACTCGTAAA	GCCAACTTCA	TTGGTAATTI	CATCAATTAC	TGTCATATCA	AAAAAGAAG	TTAATTCCGC	CAATCTTCCTT	112749		
P_fremontii	-	-	-	-	-	-	-	-	-	-	-	113611			
P_yunnanensis	CGACCAACCTC	CTACATATTT	TATGCCCTTC	CCTGCCAAAGA	AACTCGTAAA	GCCAACTTCA	TTGGTAATTI	CATCAATTAC	TGTCATATCA	AAAAAGAAG	TTAATTCCGC	CAATCTTCCTT	111899		
P_cathayana	CGACCAACCTC	CTACATATTT	TATGCCCTTC	CCTGCCAAAGA	AACTCGTAAA	GCCAACTTCA	TTGGTAATTI	CATCAATTAC	TGTCATATCA	AAAAAGAAG	TTAATTCCGC	CAATCTTCCTT	111753		
P_tremula_W52	CGACCAACCTC	CTACATATTT	TATGCCCTTC	CCTGCCAAAGA	AACTCGTAAA	GCCAACTTCA	TTGGTAATTI	CATCAATTAC	TGTCATATCA	AAAAAGAAG	TTAATTCCGC	CAATCTTCCTT	112234		
P_alba	CGACCAACCTC	CTACATATTT	TATGCCCTTC	CCTGCCAAAGA	AACTCGTAAA	GCCAACTTCA	TTGGTAATTI	CATCAATTAC	TGTCATATCA	AAAAAGAAG	TTAATTCCGC	CAATCTTCCTT	112580		
Consensus	CGACCAACCTC	CTACATATTT	TATGCCCTTC	CCTGCCAAAGA	AACTCGTAAA	GCCAACTTCA	TTGGTAATTI	CATCAATTAC	TGTCATATCA	AAAAAGAAG	TTAATTCCGC	CAATCTTCCTT	-		