***SUPPLEMENTARY FIGURES***

**Figs. S1-S7** Concatenation-based trees of *Castanea* from RAD-seq datasets. These figures show the phylogenetic trees derived from analyses of M20 to M80 datasets, respectively, using IQ-Tree. *Quercus castaneifolia* was used as an outgroup. All topologies are identical, showing two monophyletic groups, EA clade and ENA clade. Numbers on branches indicate values of UFBS.

Fig. S1



Fig. S2



Fig. S3



Fig. S4



Fig. S5



Fig. S6



Fig.S7





**Fig. S8** Concatenation-based tree of *Castanea* from analysis of a) RAD-seq M50 and b) primary Hyb-Seq-PPD data using RAxML. *Quercus castaneifolia* was used as an outgroup. Numbers on branches are values of bootstrap support.



**Fig. S9** Concatenation-based tree of *Castanea* from analysis of a) RAD-seq M50 and b) primary Hyb-Seq-PPD data using MrBayes. *Quercus castaneifolia* was used as an outgroup. Numbers on branches are values of posterior probability.

**Figs. S10-S16** Concatenation-based trees of *Hamamelis* from analysis of RAD-seq data. These figures show the phylogenetic results from analyses of M20 to M80 datasets, respectively, using IQ-Tree. *Parrotiopsis jacquemontiana* and *Fothergilla major* were used as outgroups, but the trees were rerooted by the bybrid *Hamamelis* x *intermedia*. Numbers on branches are values of UF bootstrap support.

Fig. S10



Fig. S11



Fig. S12



Fig. S13



Fig. S14



Fig. S15



Fig. S16





**Fig. S17** Concatenation-based tree of *Hamamelis* from analysis of a) RAD-seq M50 and b) primary Hyb-Seq-PPD data using RAxML. *Parrotiopsis jacquemontiana* and *Fothergilla major* were used as outgroups. Numbers on branches are values of bootstrap support.



**Fig. S18** Concatenation-based tree of *Hamamelis* from analysis of a) RAD-seq M50 and b) primary Hyb-Seq-PPD data using MrBayes. *Parrotiopsis jacquemontiana* and *Fothergilla major* were used as outgroups. Numbers on branches are values of posterior probability.



**Fig. S19** The species tree of *Hamamelis* from analysis of RAD-seq M50 data using SVDQuartets. *Parrotiopsis jacquemontiana* and *Fothergilla major* were used as outgroups. The result shows that EA clade is a monophyly with relatively low support value 62.