

GsDAHPS

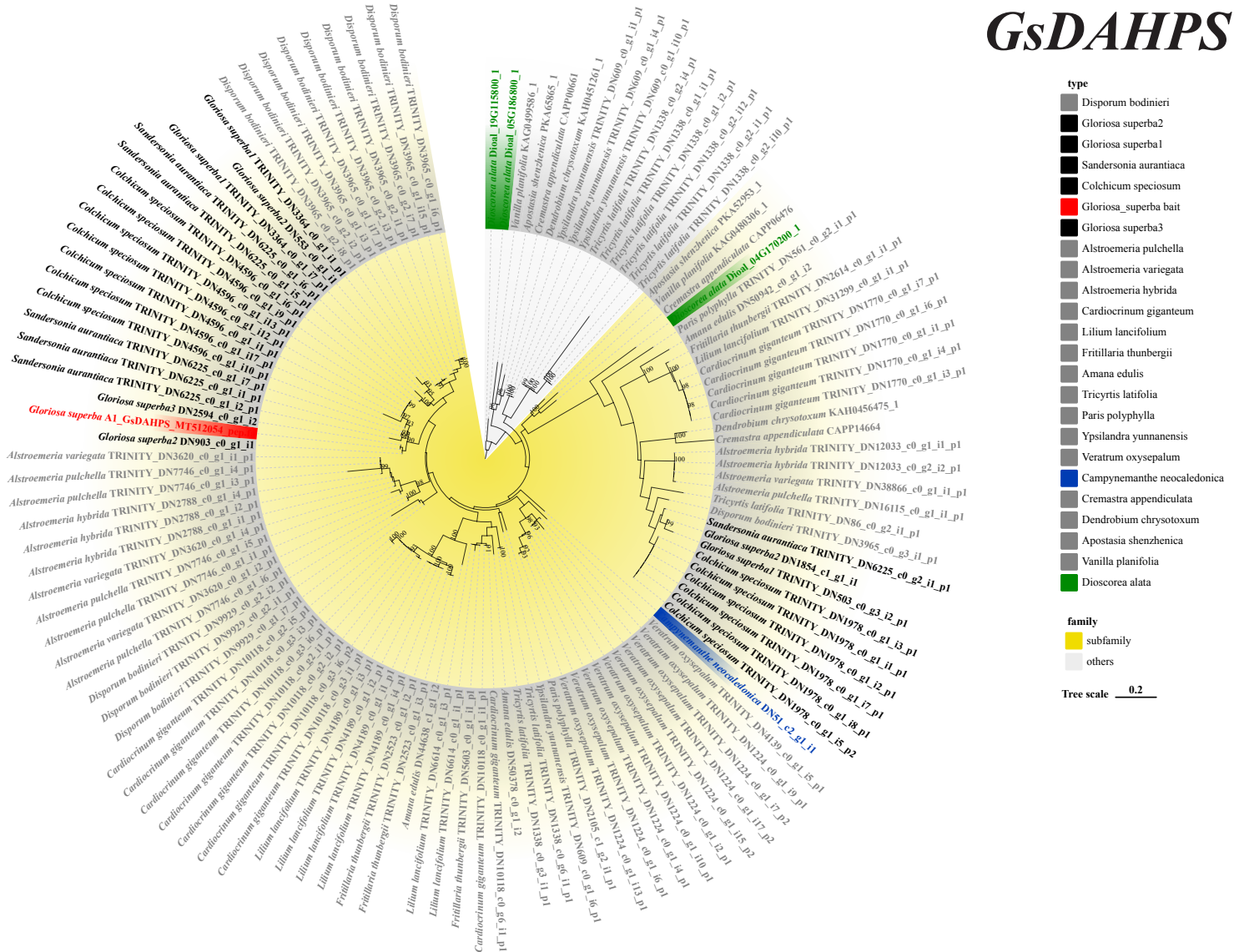


Figure S22. Phylogenetic trees for the *GsDAHPS* within the colchicine biosynthesis pathway. The gene tree was constructed using RAXML with the GTRGAMMA model and 100 bootstrap replicates.

GsPAL

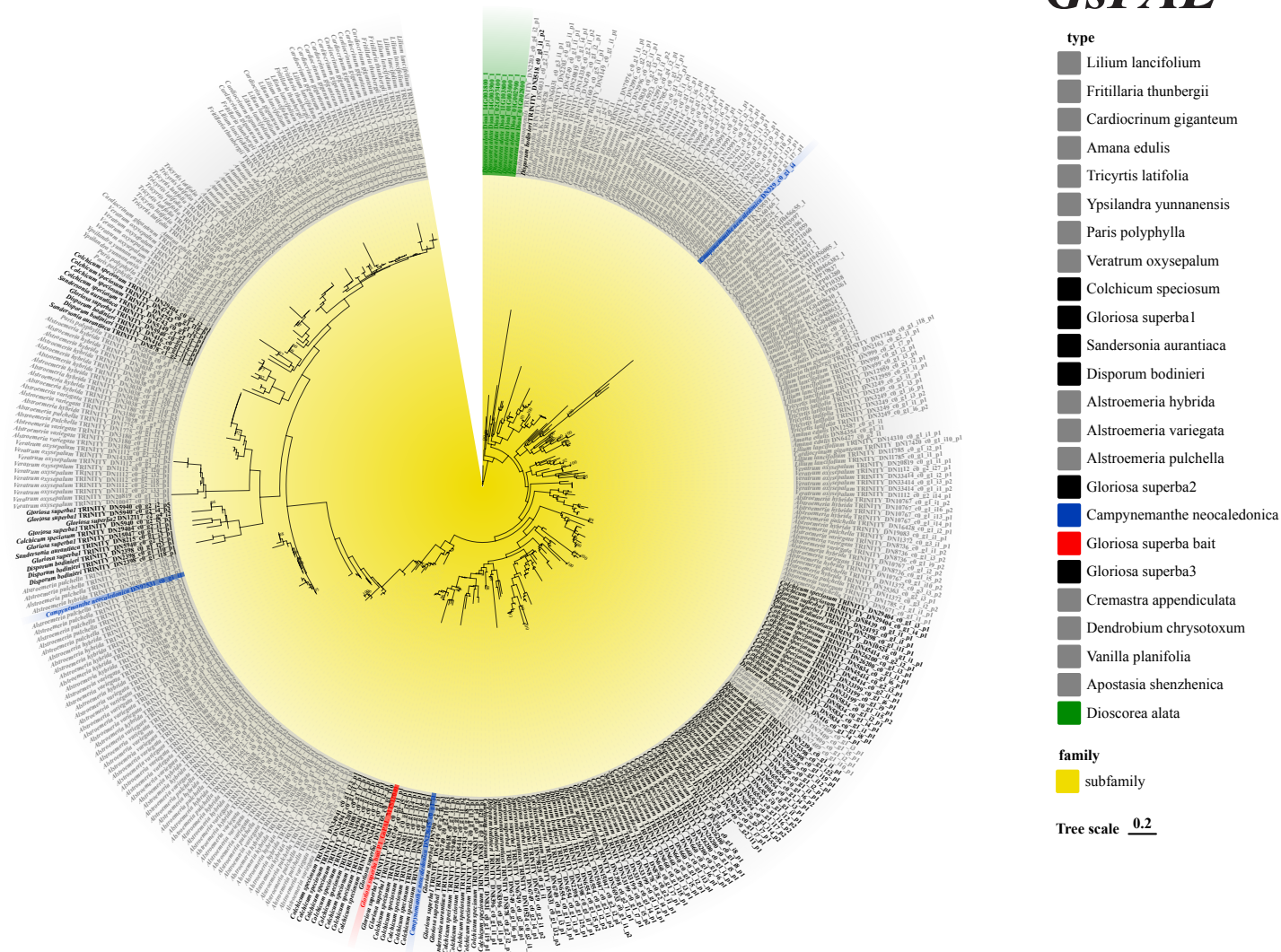


Figure S23. Phylogenetic trees for the *GsPAL* within the colchicine biosynthesis pathway. The gene tree was constructed using RAXML with the GTRGAMMA model and 100 bootstrap replicates.

GsCCR

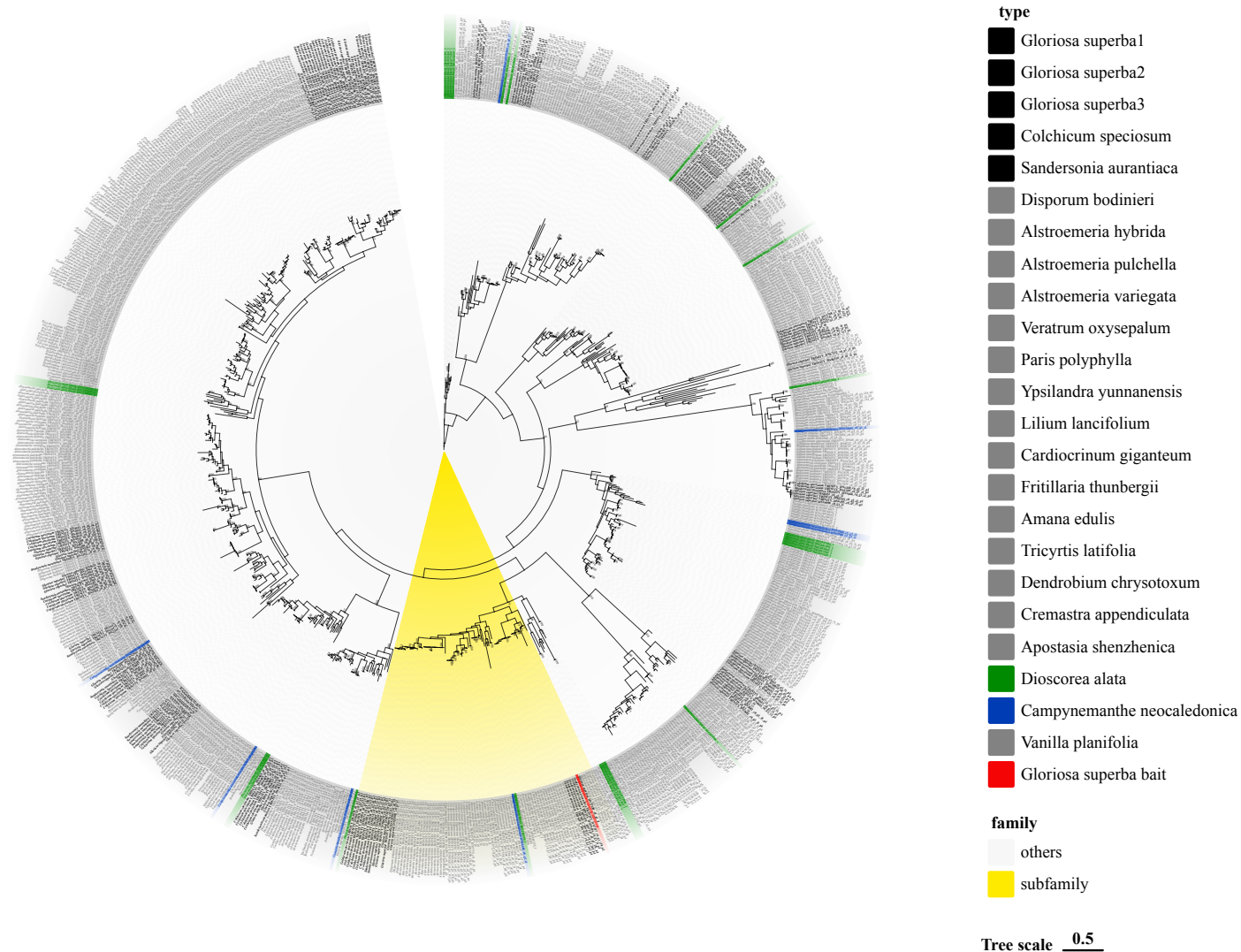


Figure S24. Phylogenetic trees for the *GsCCR* within the colchicine biosynthesis pathway. The gene tree was constructed using RAxML with the GTRGAMMA model and 100 bootstrap replicates.

GsAER

type

- Dioscorea alata
- Vanilla planifolia
- Cremastra appendiculata
- Apostasia shenzhenica
- Ypsilandra yunnanensis
- Paris polyphylla
- Veratrum oxysepalum
- Fritillaria thunbergii
- Cardiocrinum giganteum
- Lilium lancifolium
- Amana edulis
- Tricyrtis latifolia
- Campynemanthe neocaledonica
- Alstroemeria pulchella
- Alstroemeria hybrida
- Alstroemeria variegata
- Gloriosa superba1
- Gloriosa superba2
- Gloriosa superba3
- Colchicum speciosum
- Sandersonia aurantiaca
- Disporum bodinieri
- Dendrobium chrysotoxum
- Gloriosa superba bait

family

- others
- subfamily

Tree scale 0.5

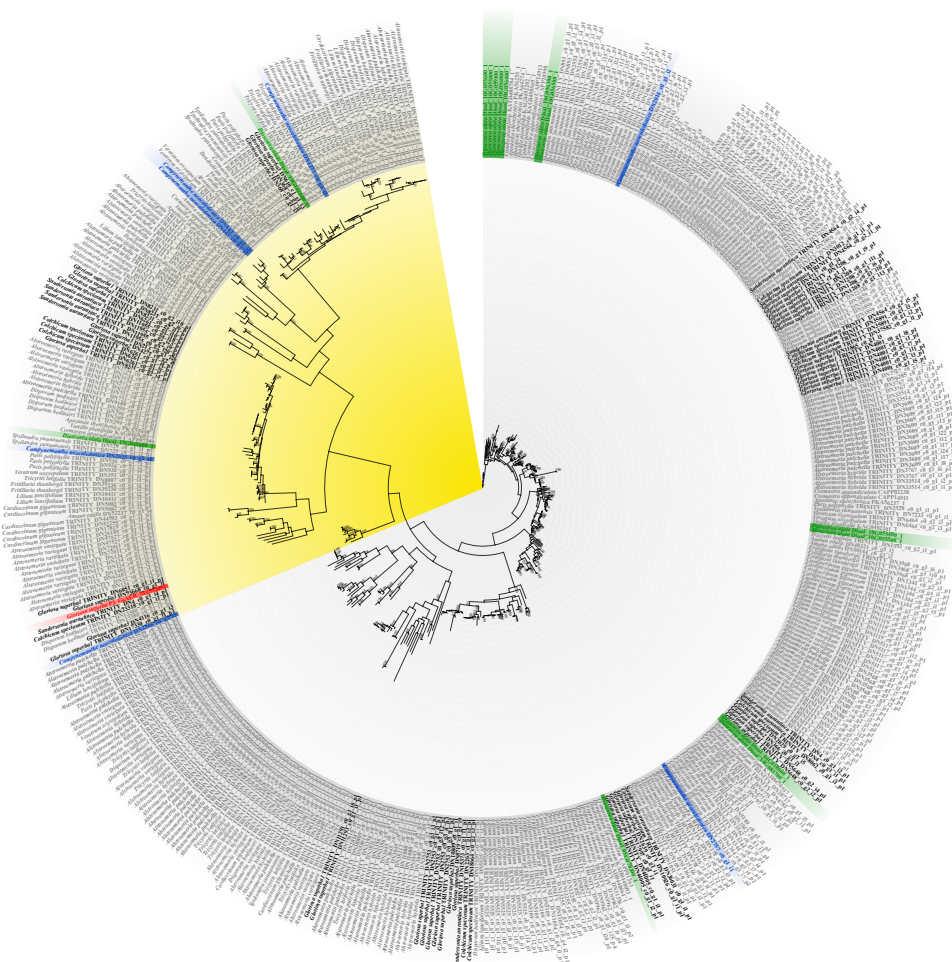


Figure S25. Phylogenetic trees for the *GsAER* within the colchicine biosynthesis pathway. The gene tree was constructed using RAxML with the GTRGAMMA model and 100 bootstrap replicates.

GsC4H

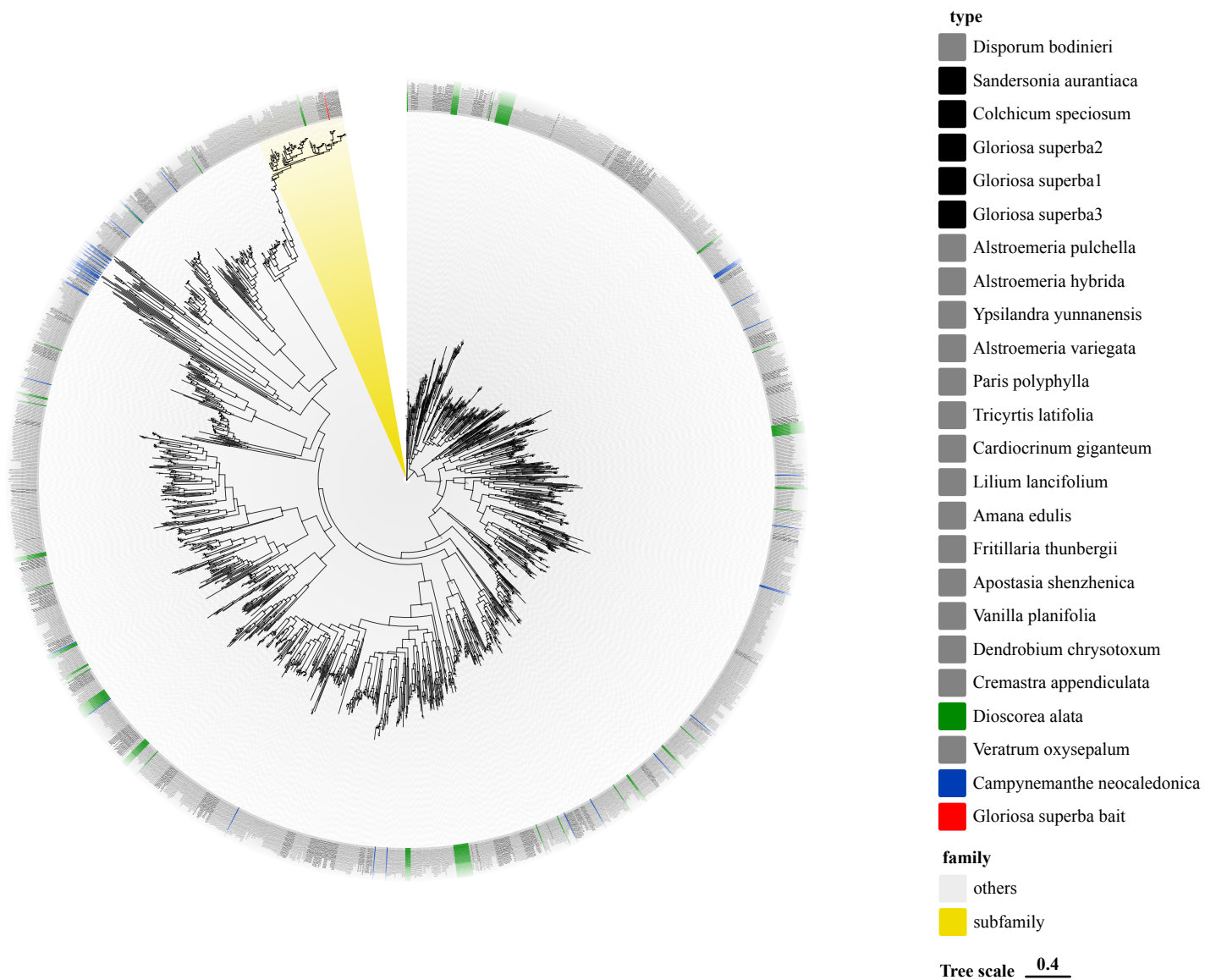


Figure S26. Phylogenetic trees for the *GsC4H* within the colchicine biosynthesis pathway. The gene tree was constructed using RAXML with the GTRGAMMA model and 100 bootstrap replicates.

GsTyDCDDC

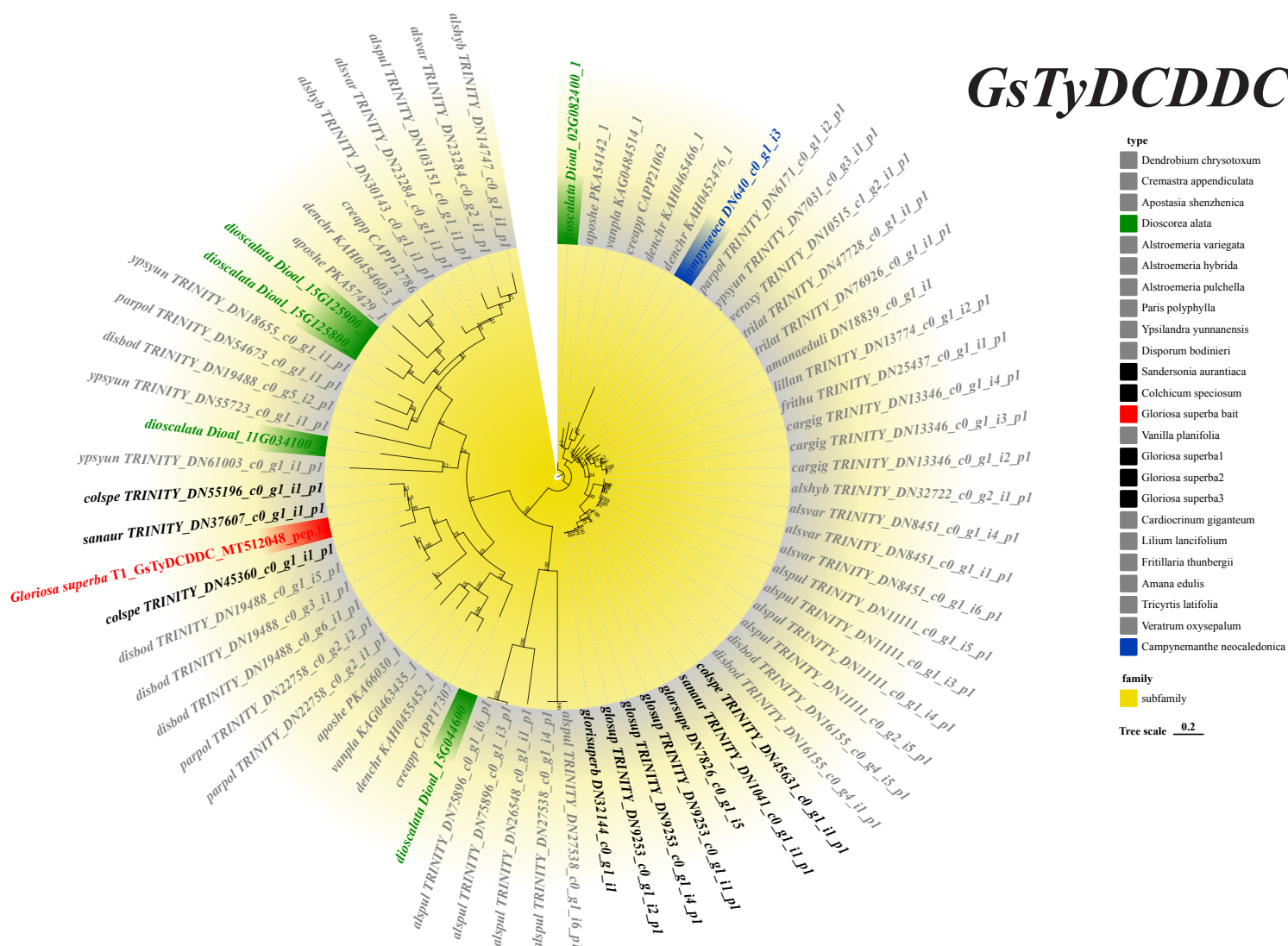


Figure S27. Phylogenetic trees for the *GsTyDCDDC* within the colchicine biosynthesis pathway. The gene tree was constructed using RAxML with the GTRGAMMA model and 100 bootstrap replicates.

BvCYP76AD5

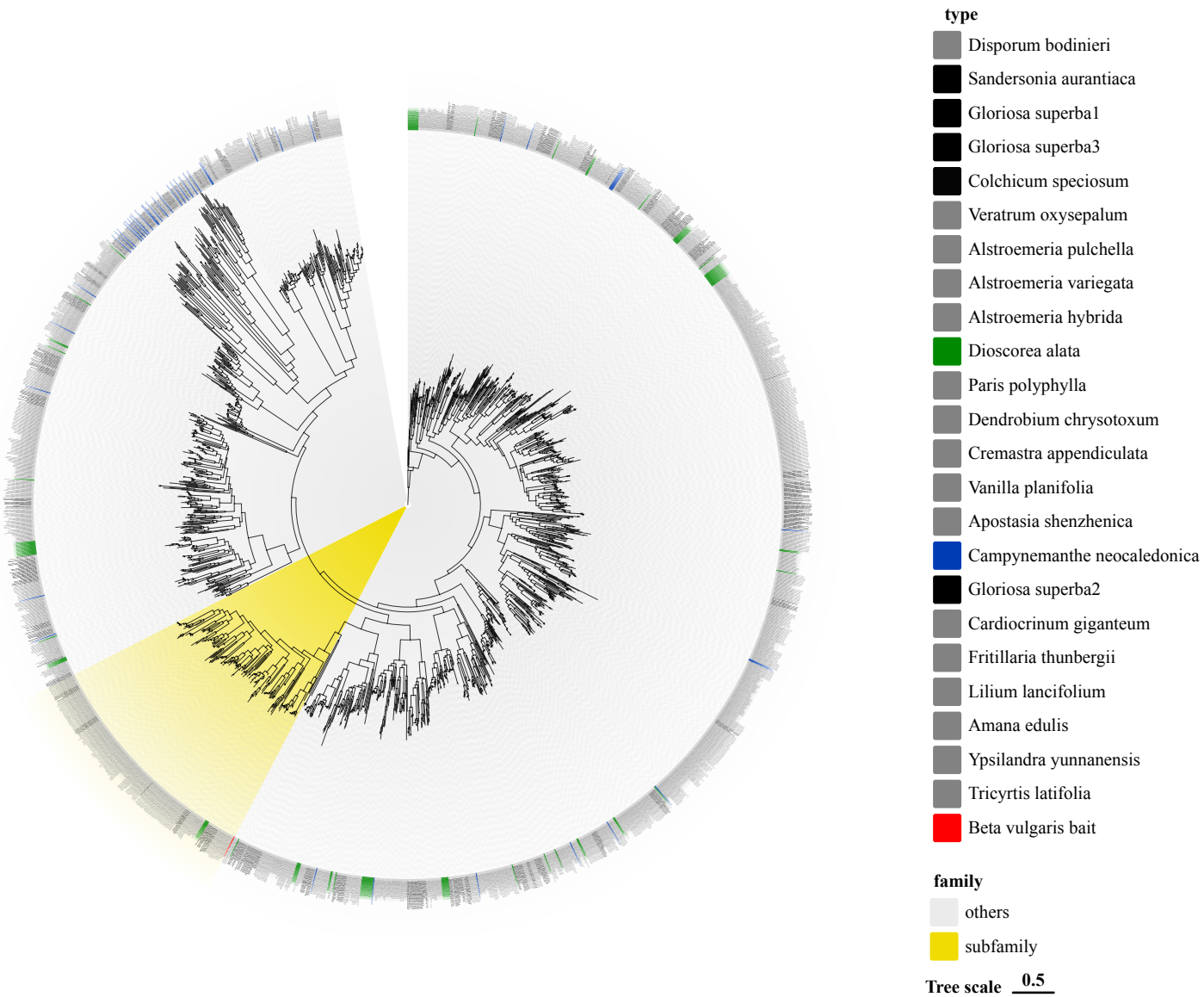


Figure S28. Phylogenetic trees for the *BvCYP76AD5* within the colchicine biosynthesis pathway. The gene tree was constructed using RAxML with the GTRGAMMA model and 100 bootstrap replicates.

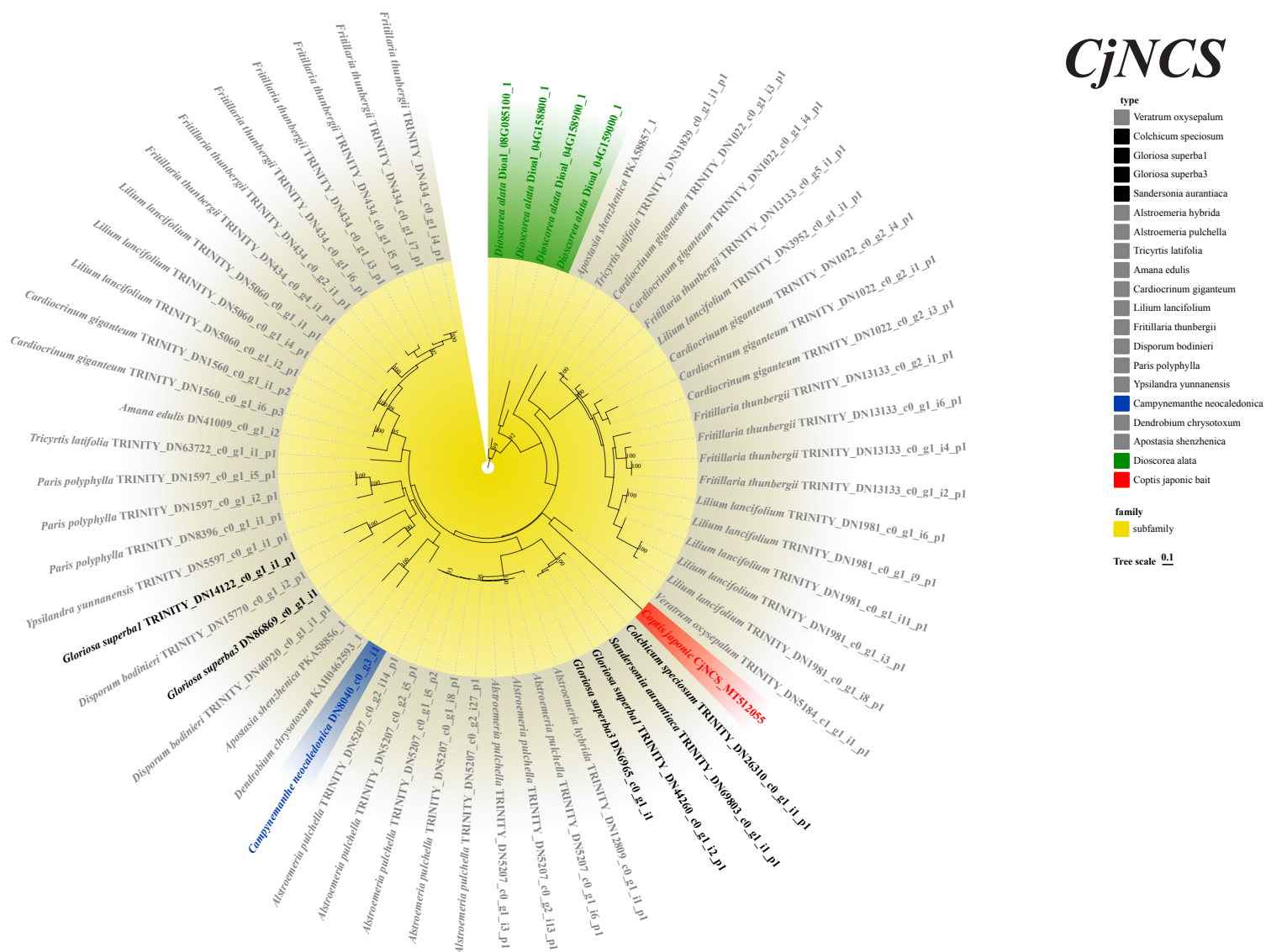


Figure S29. Phylogenetic trees for the CjNCS within the colchicine biosynthesis pathway. The gene tree was constructed using RAXML with the GTRGAMMA model and 100 bootstrap replicates.

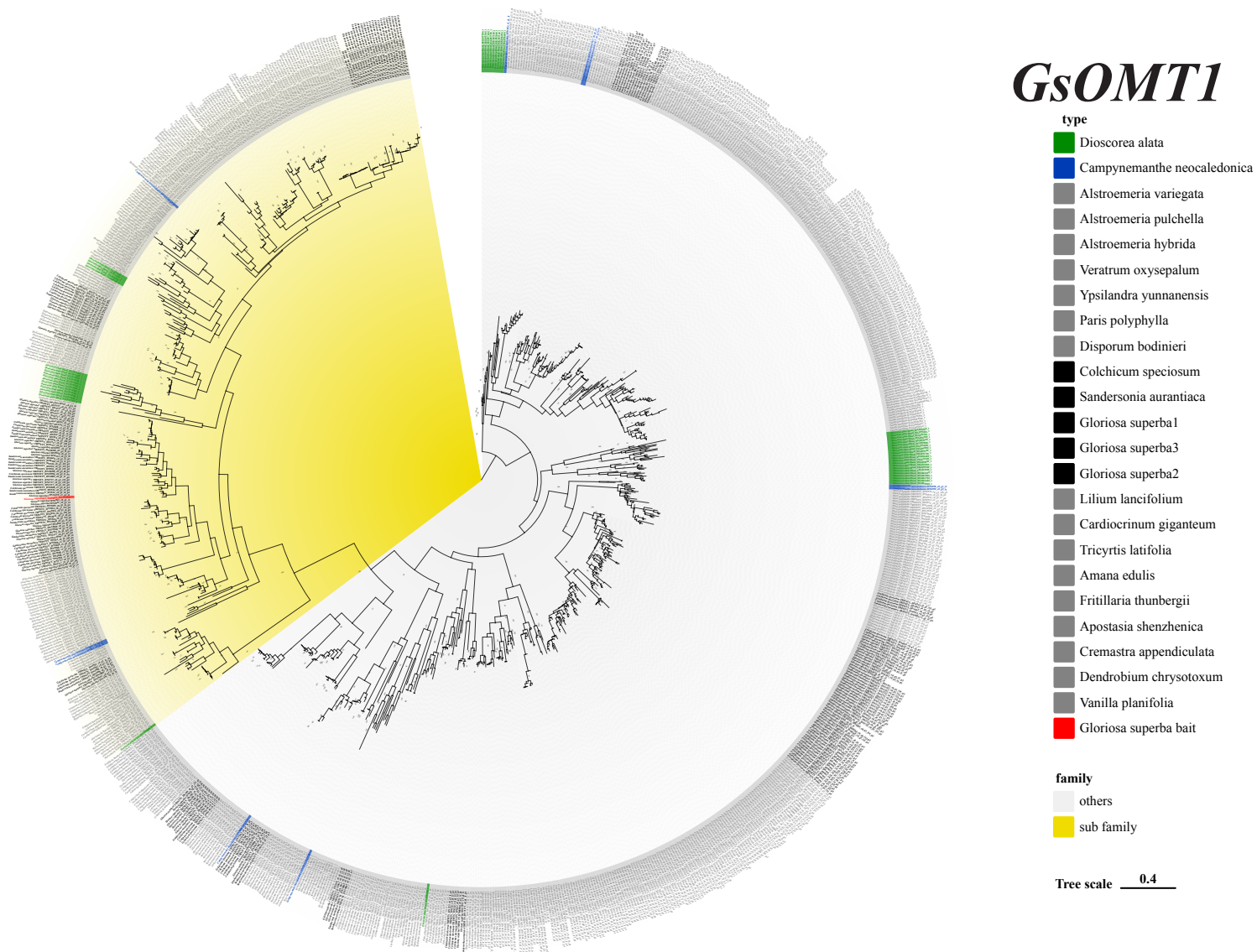


Figure S30. Phylogenetic trees for the *GsOMT1* within the colchicine biosynthesis pathway. The gene tree was constructed using RAXML with the GTRGAMMA model and 100 bootstrap replicates.

GsNMT

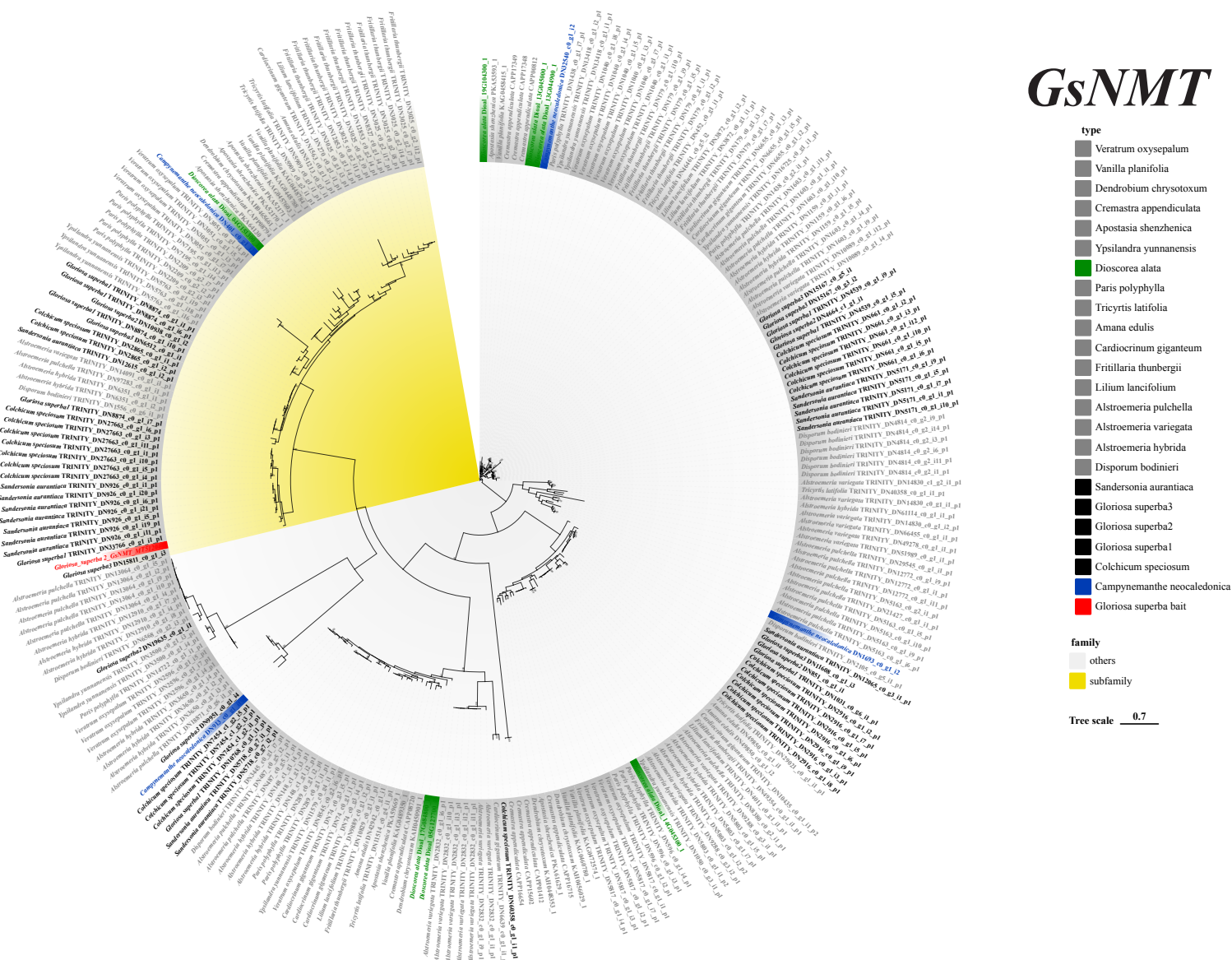


Figure S31. Phylogenetic trees for the GsNMT within the colchicine biosynthesis pathway. The gene tree was constructed using RAxML with the GTRGAMMA model and 100 bootstrap replicates.

GsCYP75A109

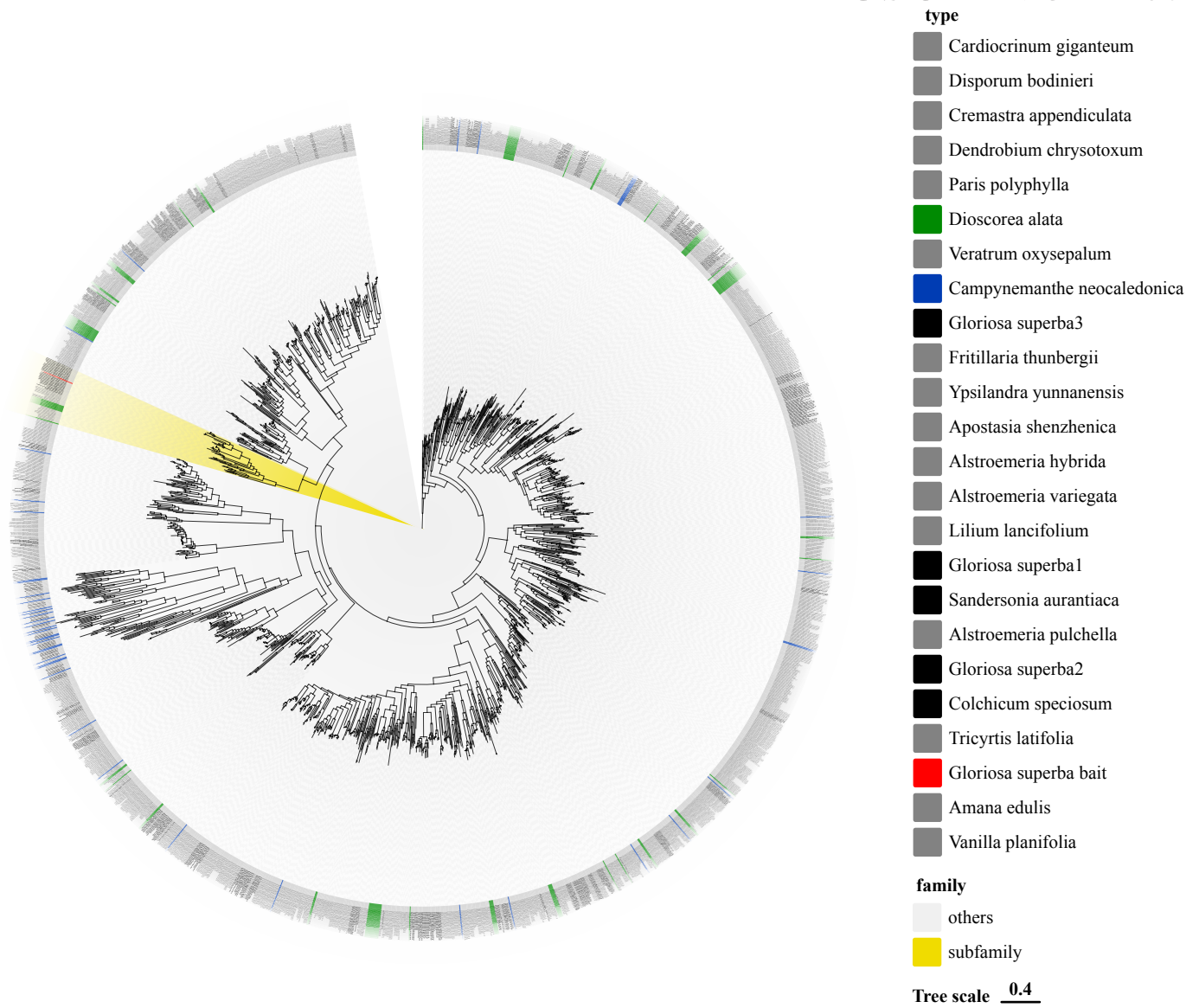


Figure S32. Phylogenetic trees for the *GsCYP75A109* within the colchicine biosynthesis pathway. The gene tree was constructed using RAXML with the GTRGAMMA model and 100 bootstrap replicates.

GsOMT2

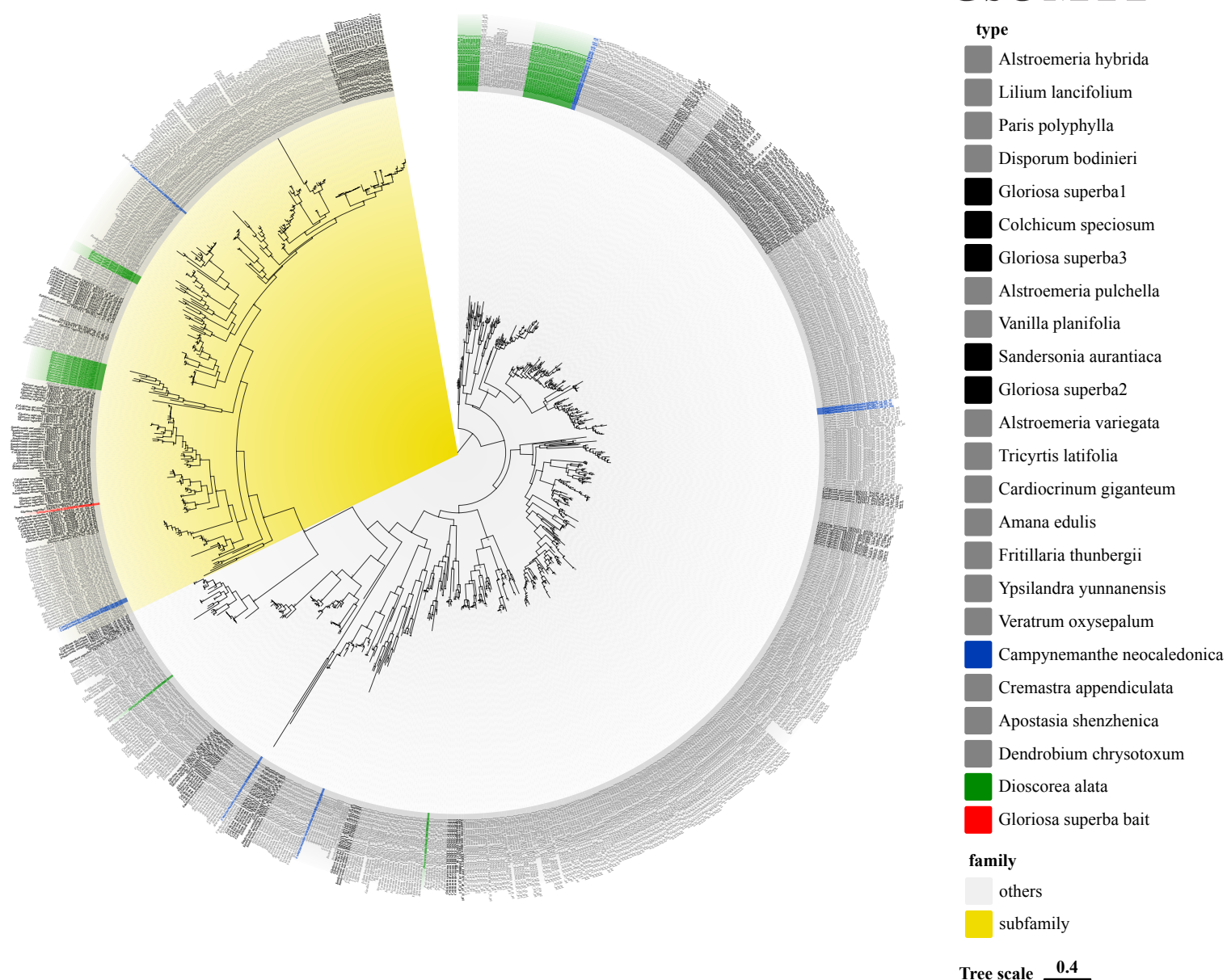


Figure S33. Phylogenetic trees for the *GsOMT2* within the colchicine biosynthesis pathway. The gene tree was constructed using RAxML with the GTRGAMMA model and 100 bootstrap replicates.

GsOMT3

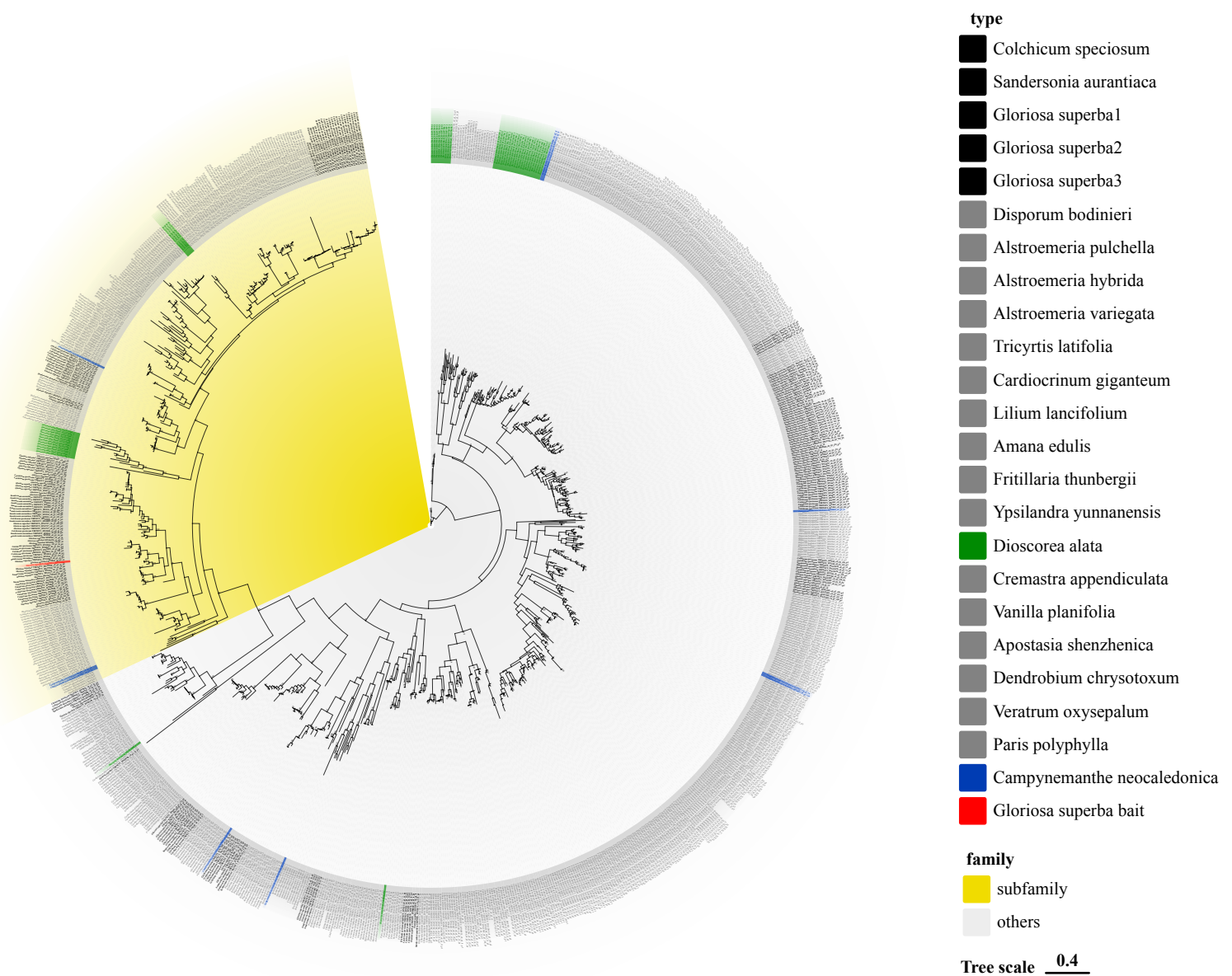


Figure S34. Phylogenetic trees for the *GsOMT3* within the colchicine biosynthesis pathway. The gene tree was constructed using RAxML with the GTRGAMMA model and 100 bootstrap replicates.

GsCYP75A110

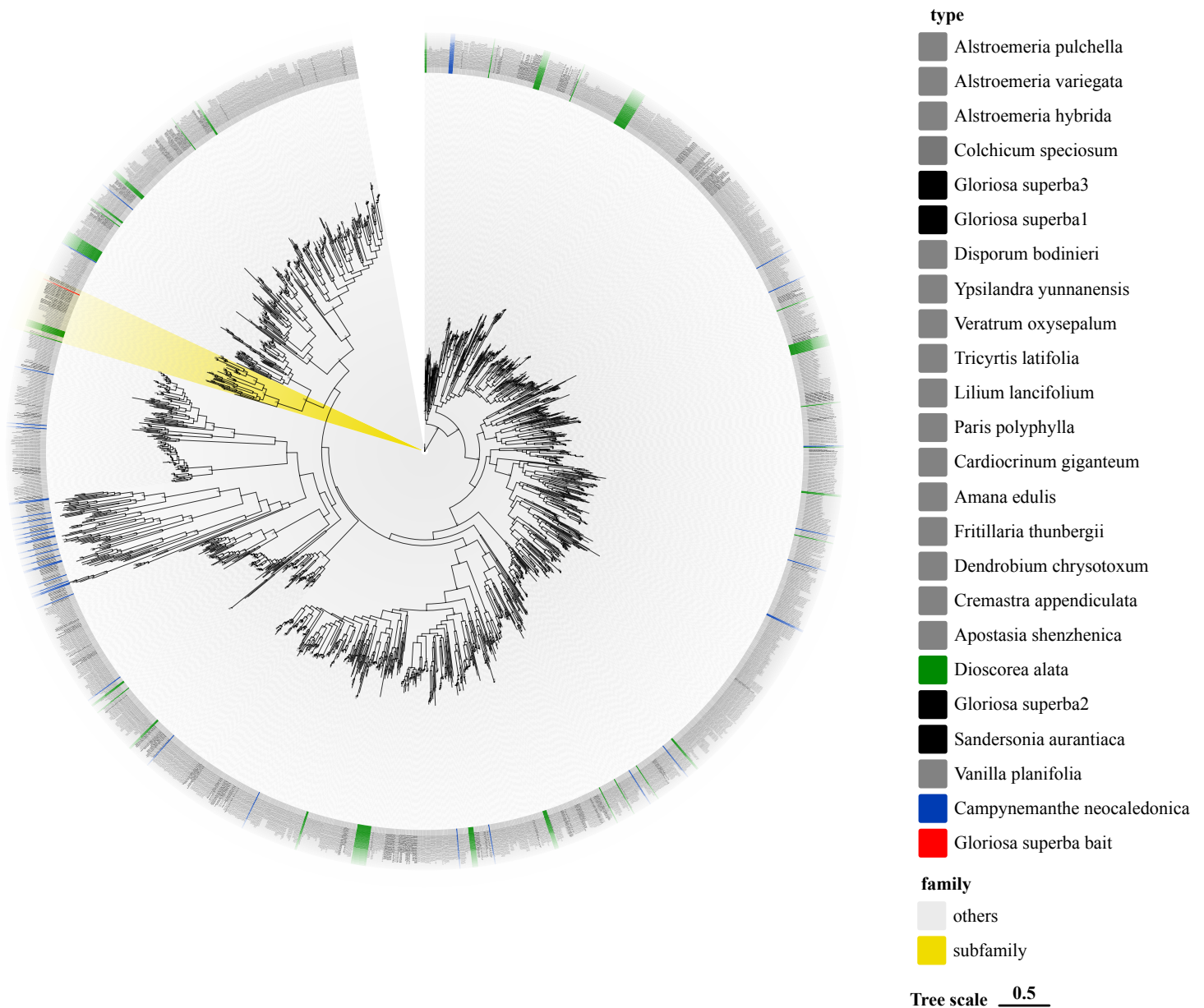


Figure S35. Phylogenetic trees for the *GsCYP75A110* within the colchicine biosynthesis pathway. The gene tree was constructed using RAxML with the GTRGAMMA model and 100 bootstrap replicates.

GsOMT4

type

- Colchicum speciosum
- Sandersonia aurantiaca
- Gloriosa superba1
- Gloriosa superba2
- Gloriosa superba3
- Disporum bodinieri
- Alstroemeria pulchella
- Alstroemeria hybrida
- Alstroemeria variegata
- Tricyrtis latifolia
- Lilium lancifolium
- Cardiocrinum giganteum
- Amana edulis
- Fritillaria thunbergii
- Veratrum oxysepalum
- Ypsilandra yunnanensis
- Paris polyphylla
- Campynemanthe neocaledonica
- Cremastra appendiculata
- Vanilla planifolia
- Apostasia shenzhenica
- Dendrobium chrysotoxum
- Dioscorea alata
- Gloriosa superba bait

family

- subfamily
- others

Tree scale 0.4

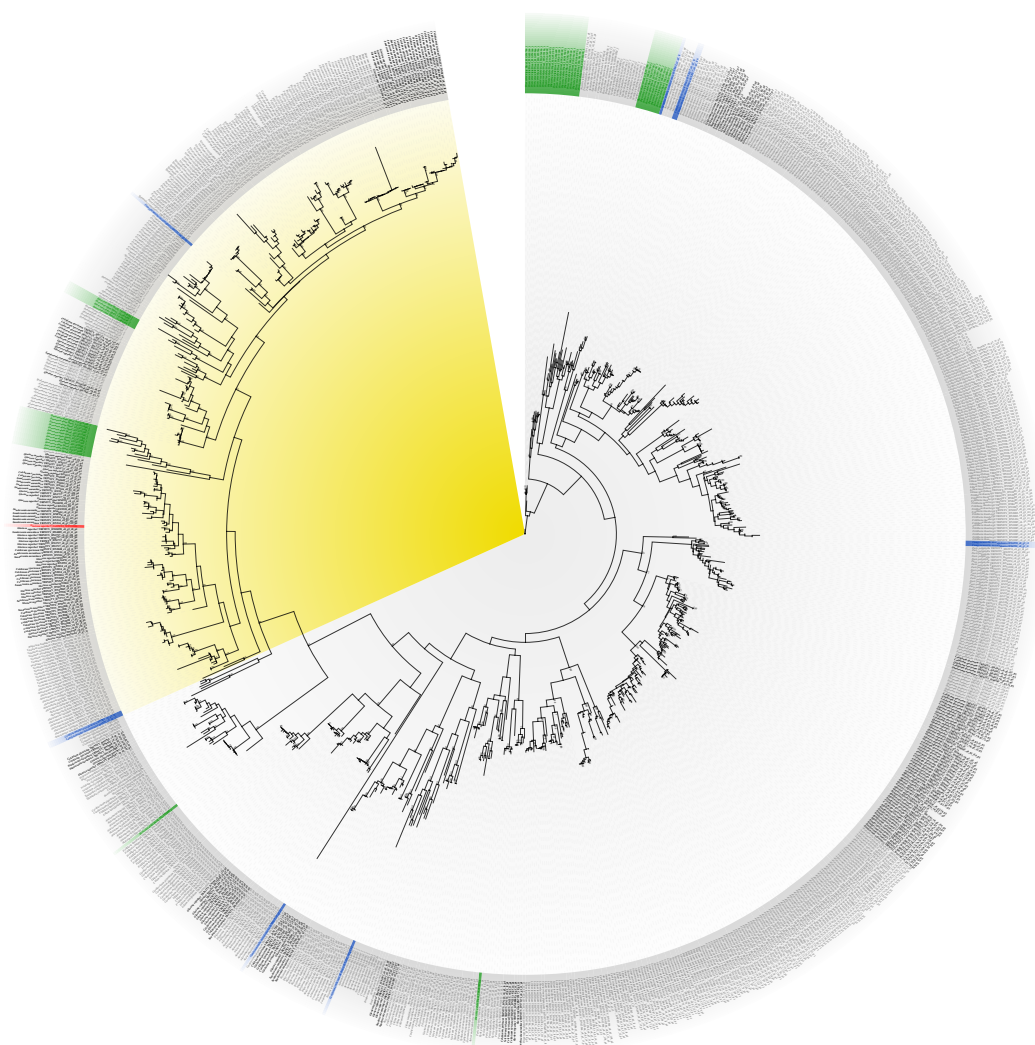


Figure S36. Phylogenetic trees for the *GsOMT4* within the colchicine biosynthesis pathway. The gene tree was constructed using RAxML with the GTRGAMMA model and 100 bootstrap replicates.

GsCYP71FB1

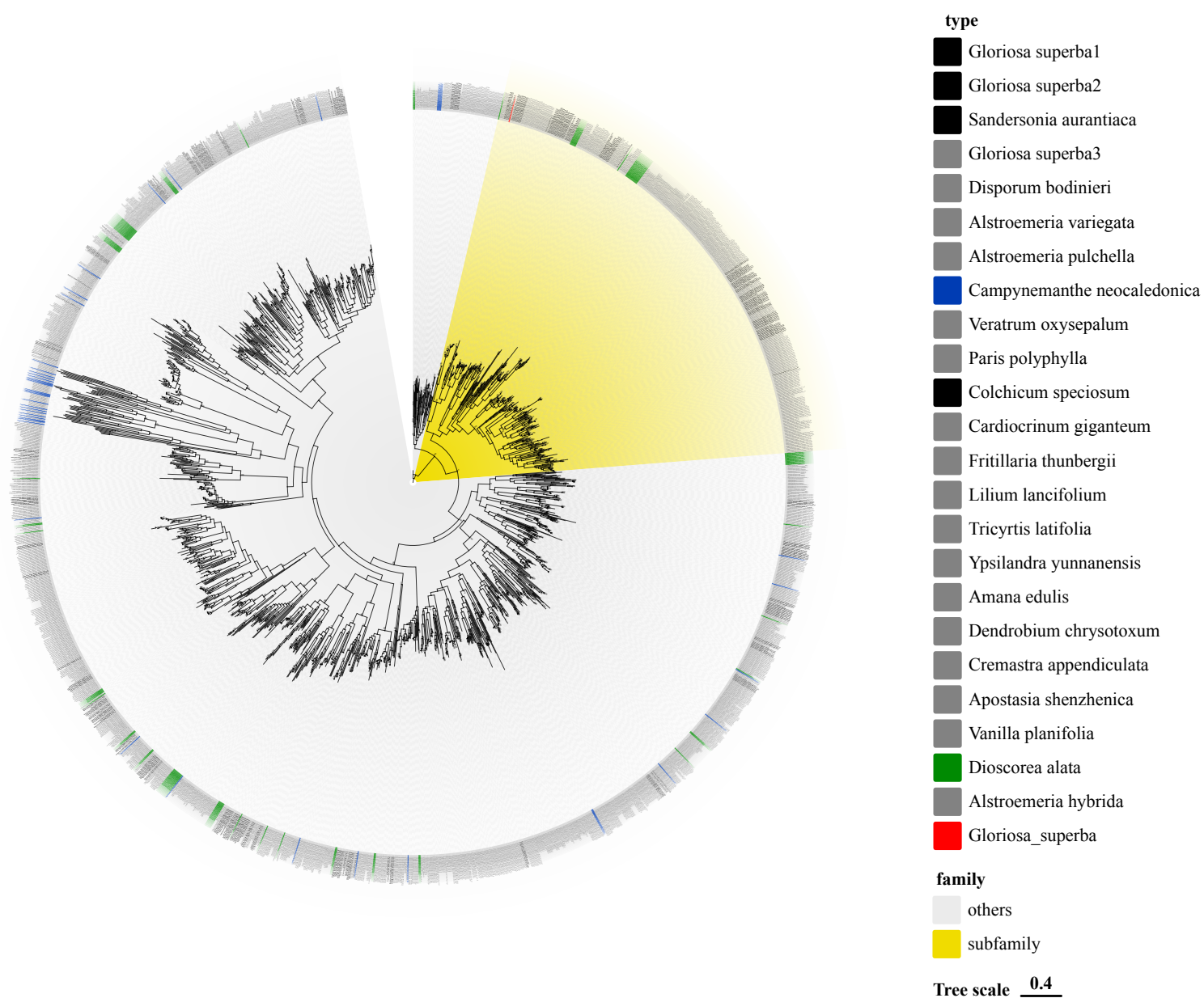


Figure S37. Phylogenetic trees for the *GsCYP71FB1* within the colchicine biosynthesis pathway. The gene tree was constructed using RAXML with the GTRGAMMA model and 100 bootstrap replicates.

GsCYP71DA12

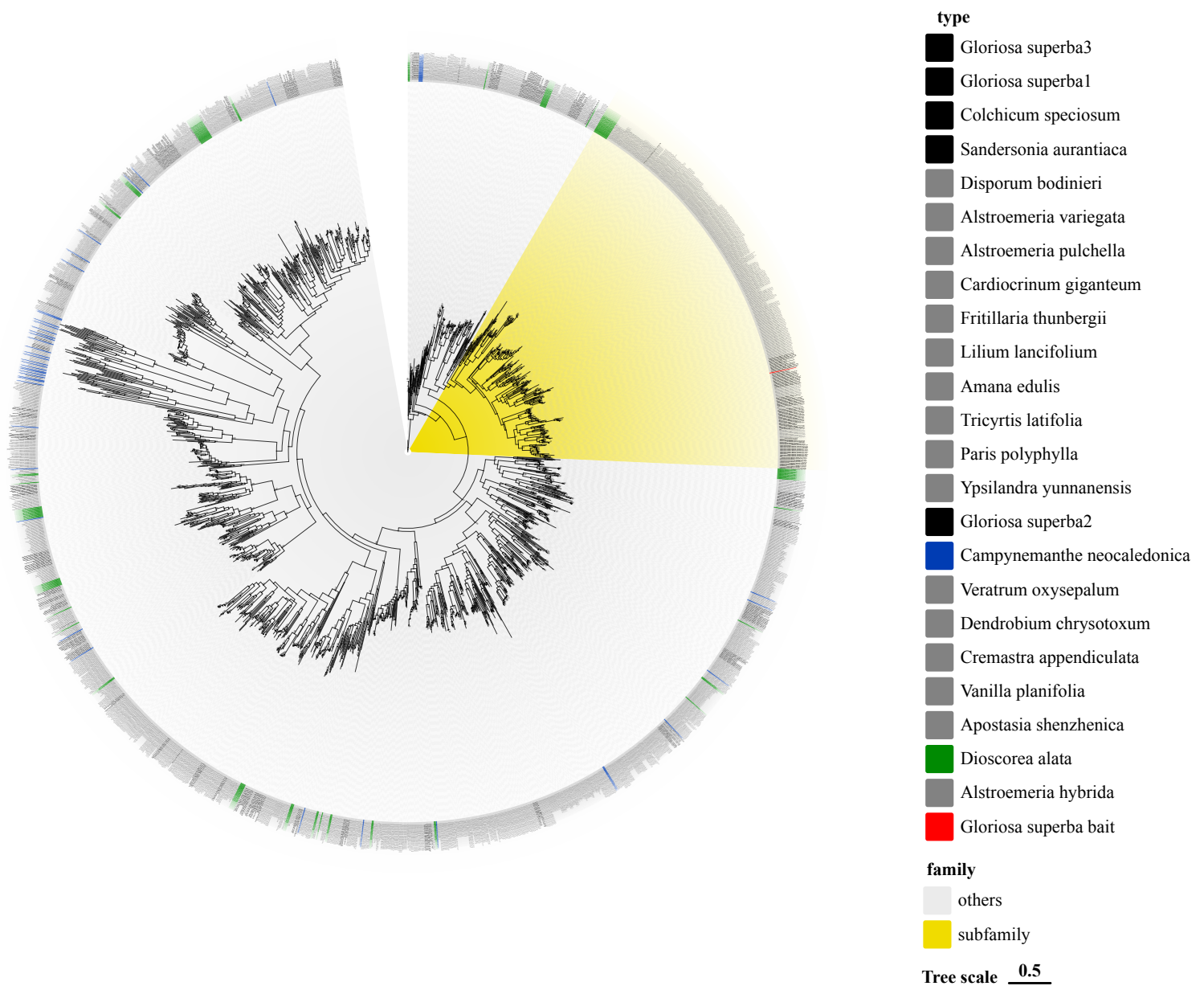


Figure S38. Phylogenetic trees for the *GsCYP71DA12* within the colchicine biosynthesis pathway. The gene tree was constructed using RAxML with the GTRGAMMA model and 100 bootstrap replicates.

GsABH1

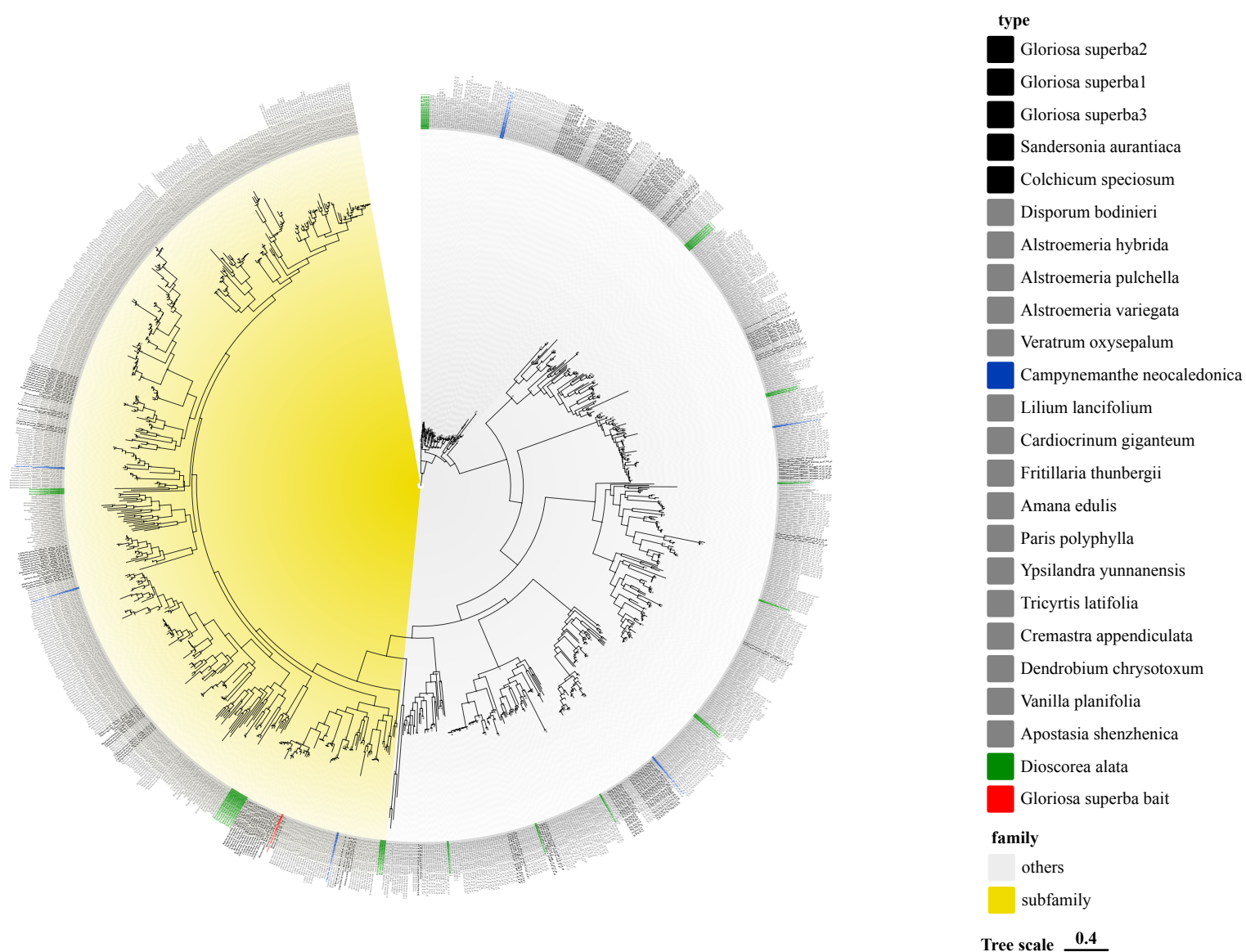


Figure S39. Phylogenetic trees for the *GsABH1* within the colchicine biosynthesis pathway. The gene tree was constructed using RAXML with the GTRGAMMA model and 100 bootstrap replicates.

GsNAT1

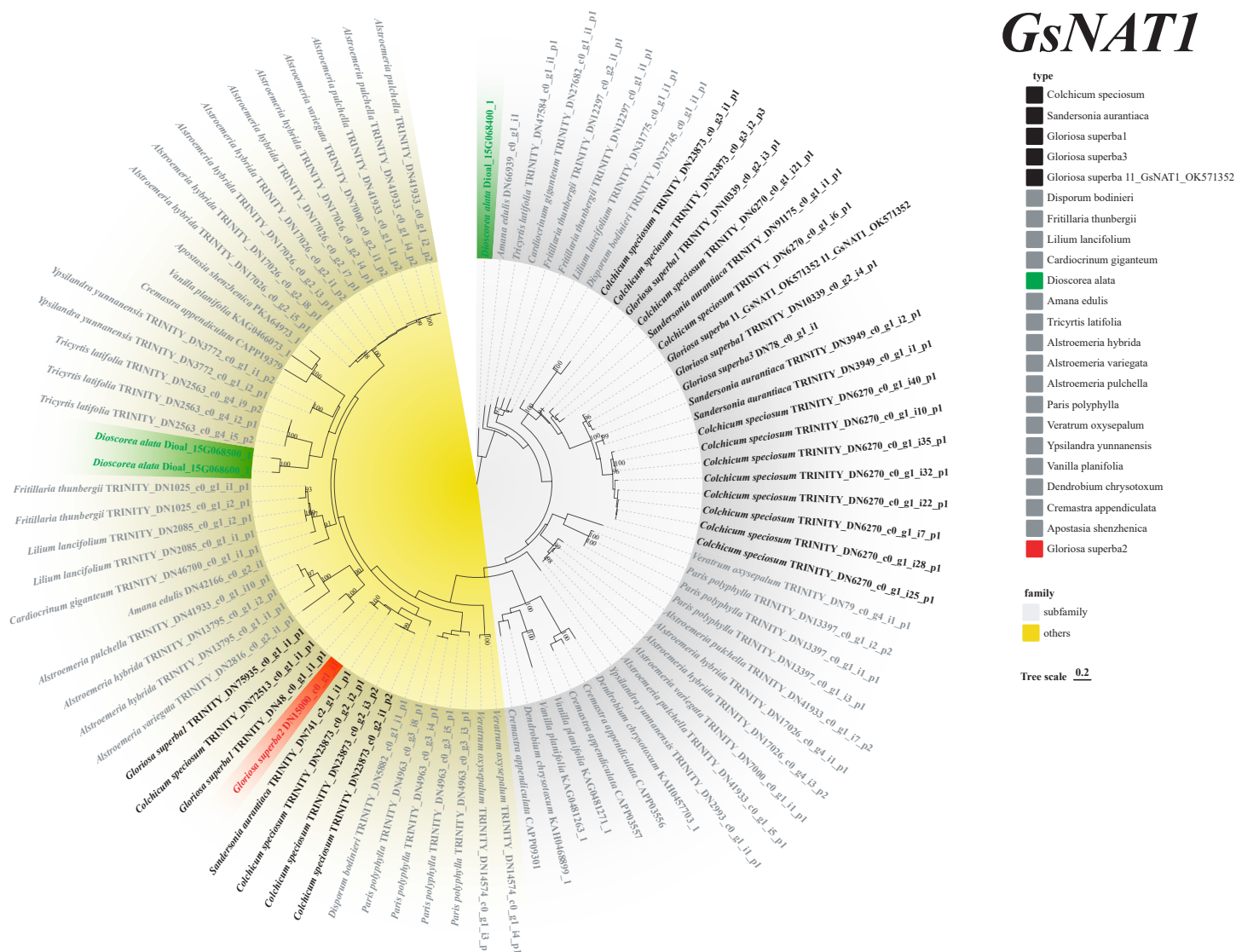


Figure S40. Phylogenetic trees for the *GsNAT1* within the colchicine biosynthesis pathway. The gene tree was constructed using RAXML with the GTRGAMMA model and 100 bootstrap replicates.