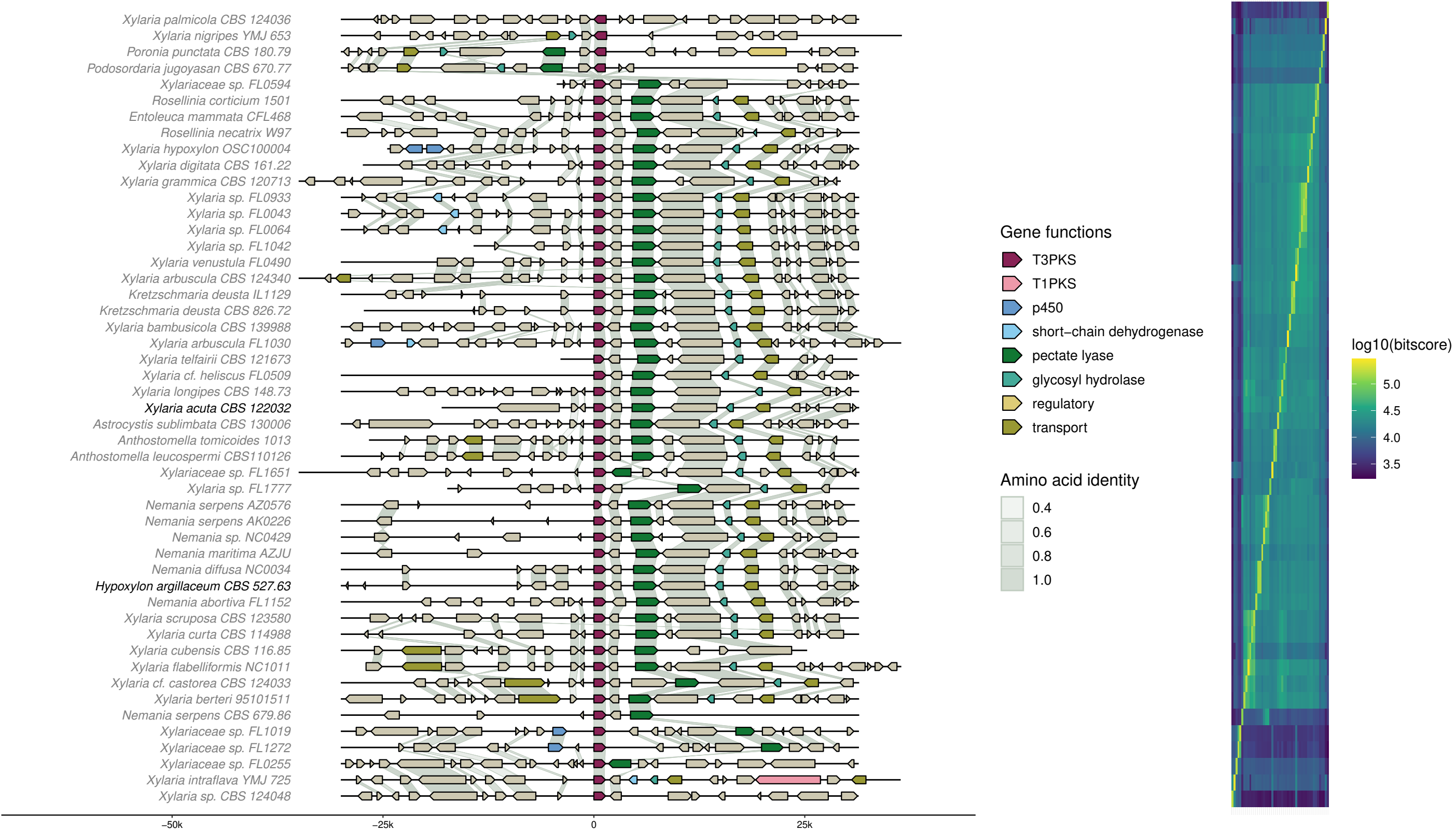
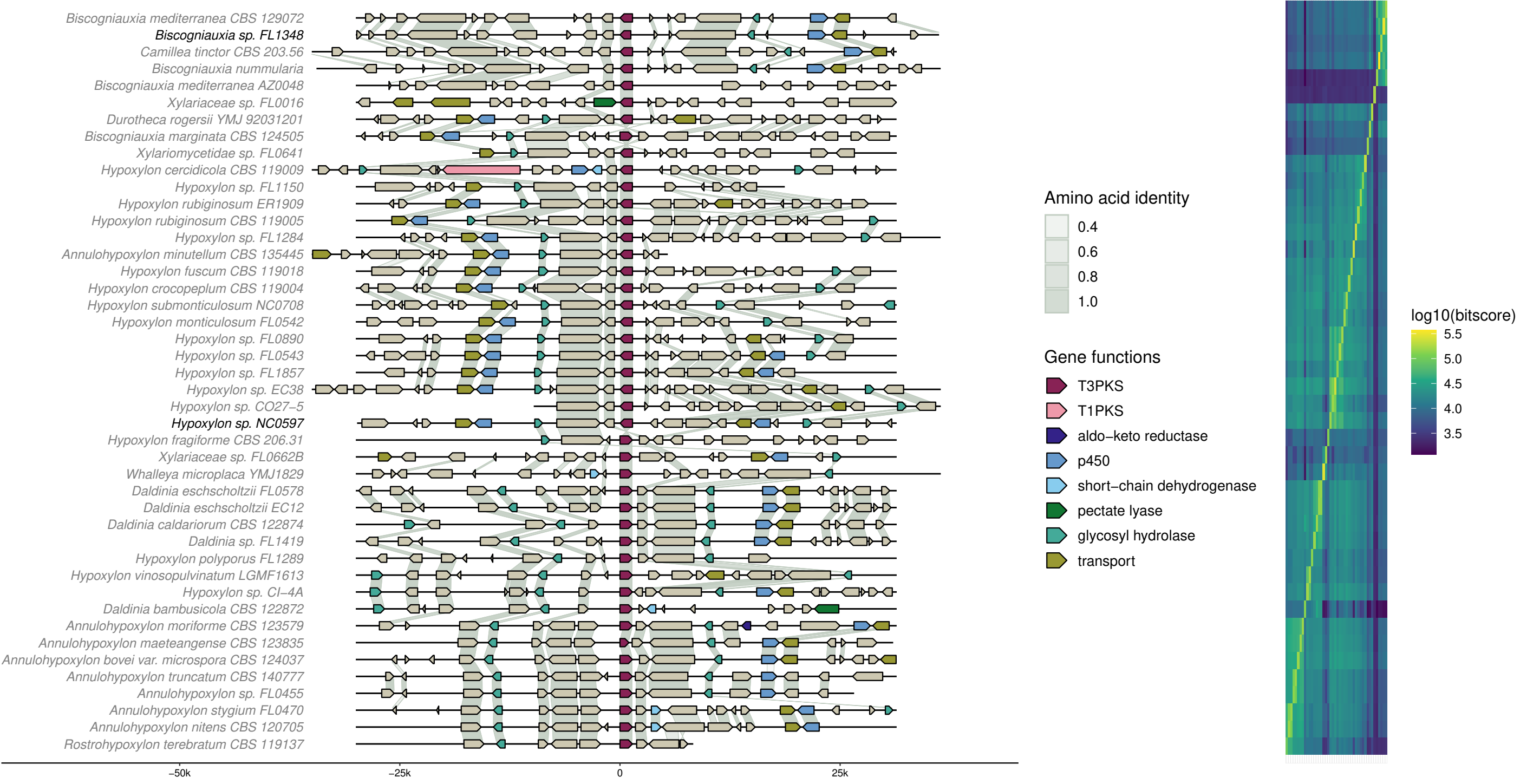


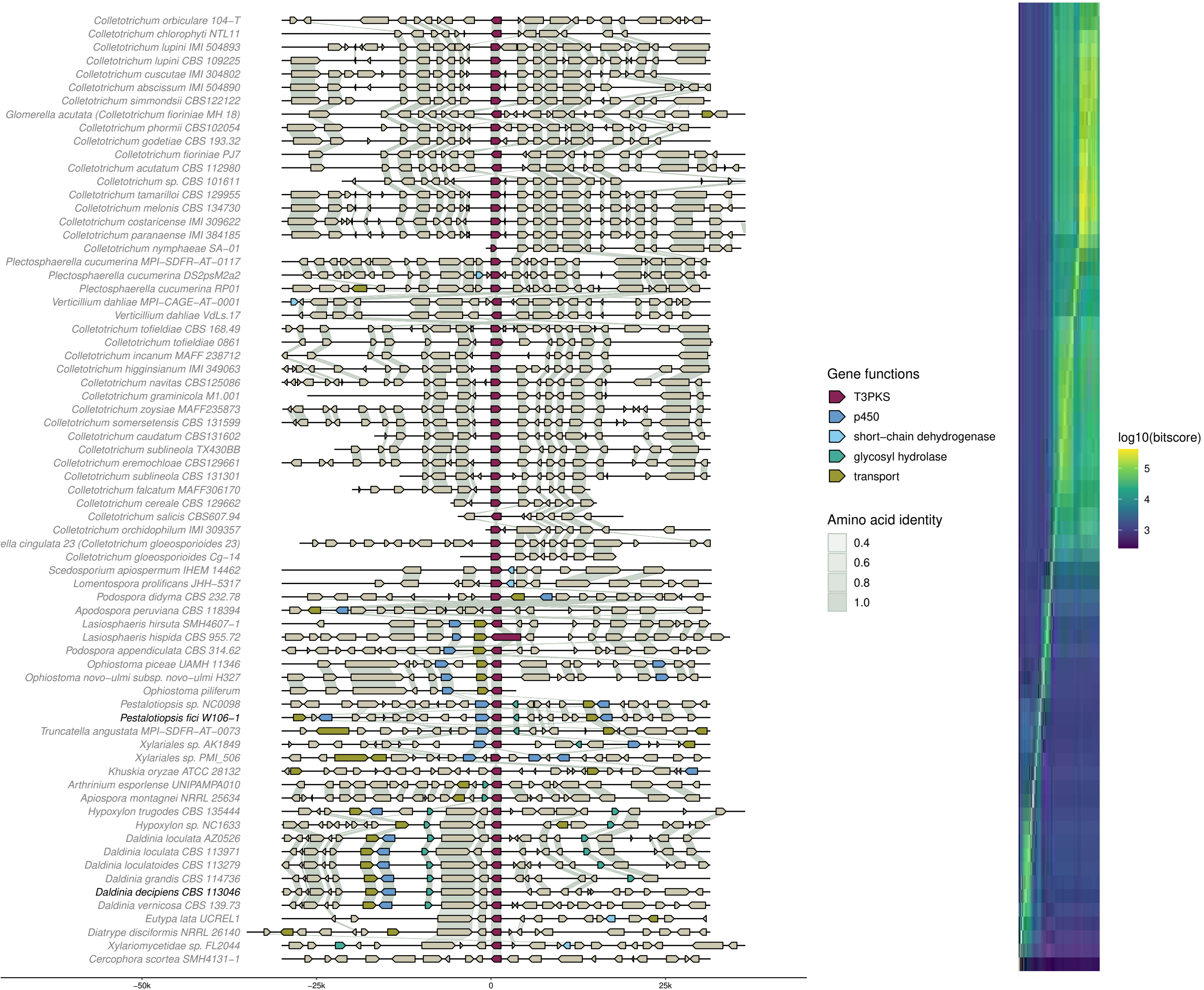
Cluster 1–1



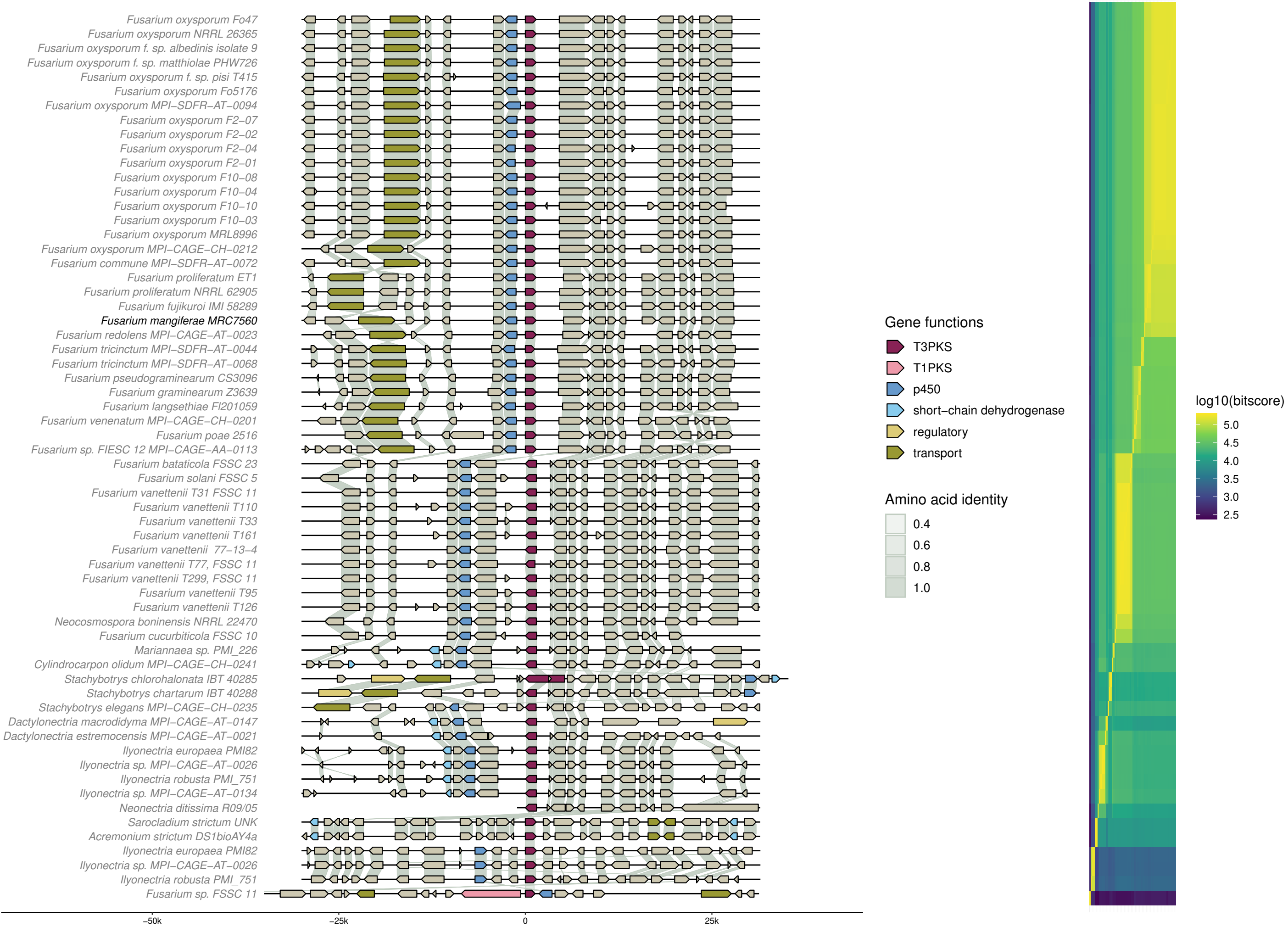
Cluster 1–2



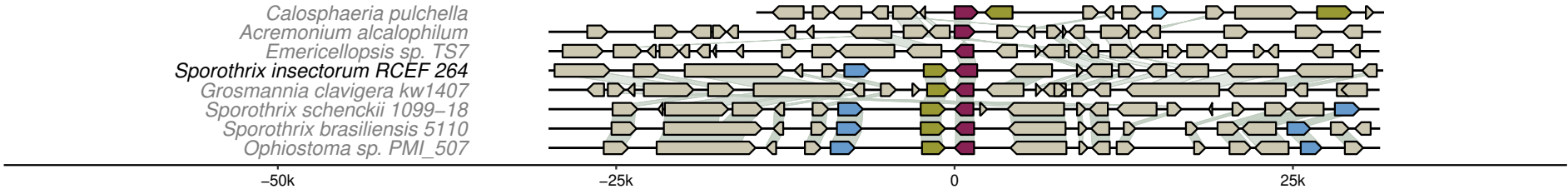
Cluster 1–3



Cluster 1–4



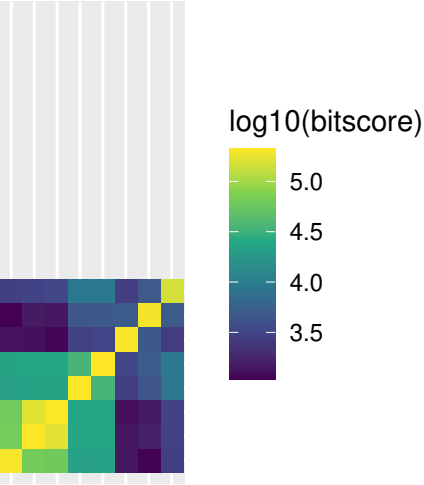
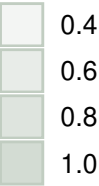
Cluster 1–5



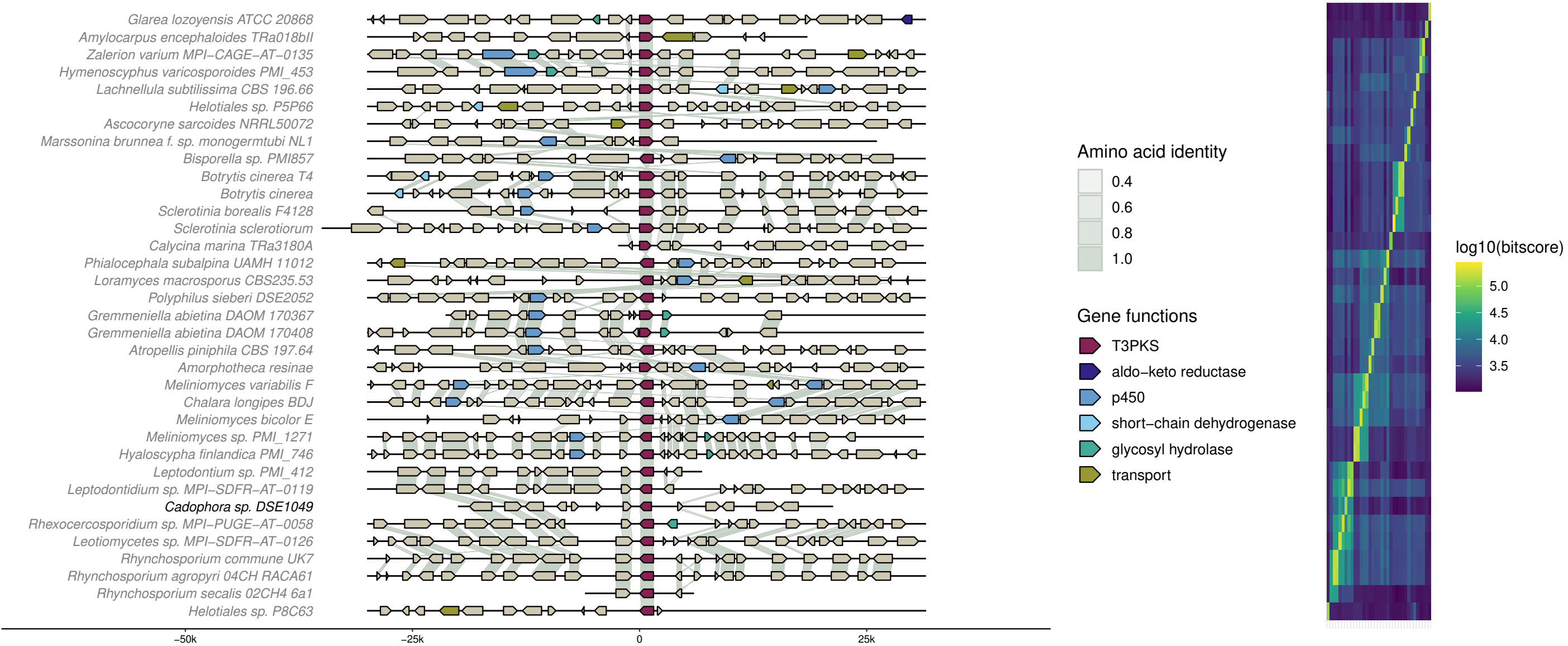
Gene functions

- T3PKS
- p450
- short-chain dehydrogenase
- transport

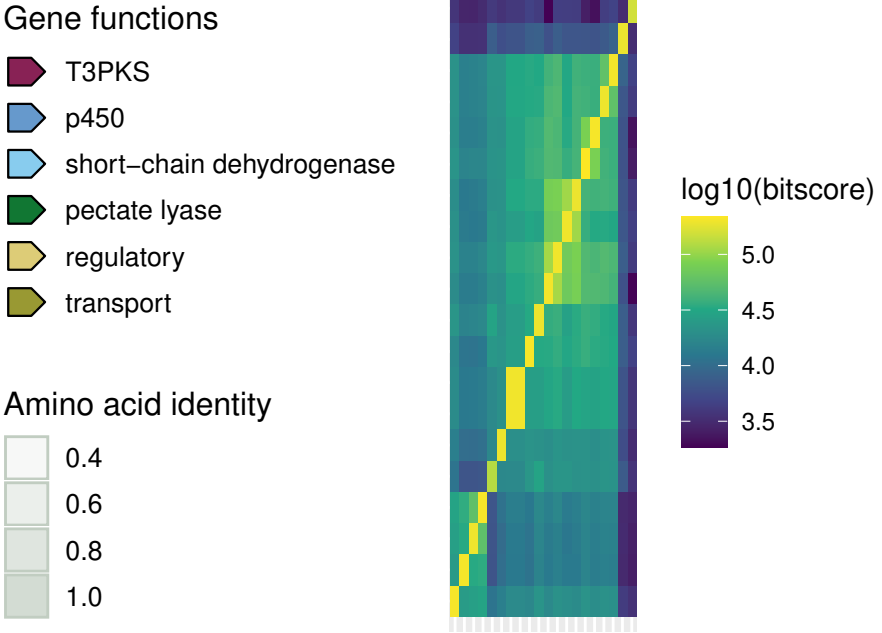
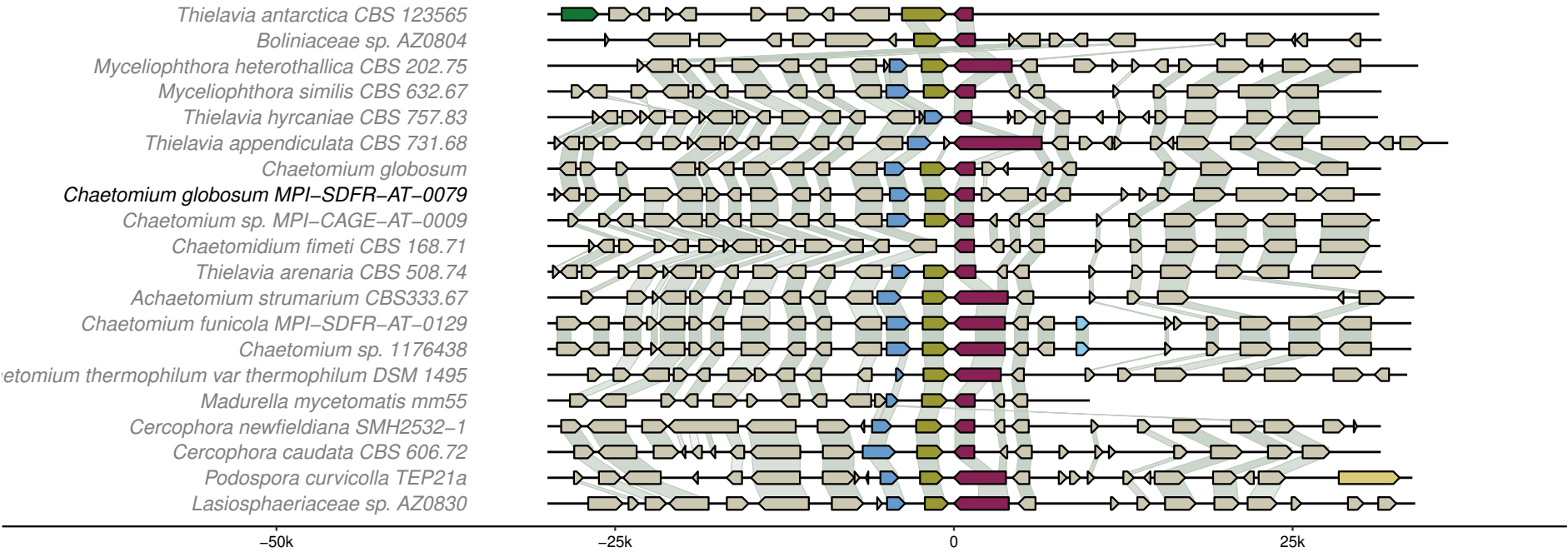
Amino acid identity



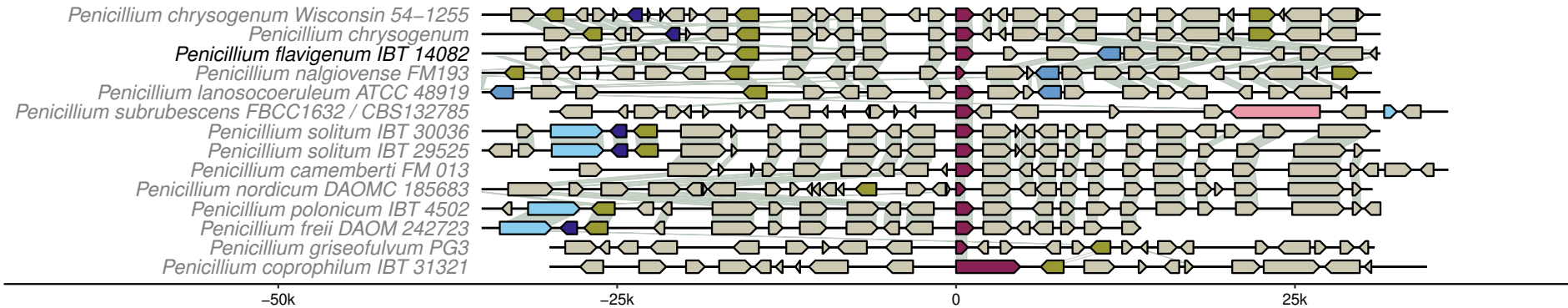
Cluster 2



Cluster 3



Cluster 4

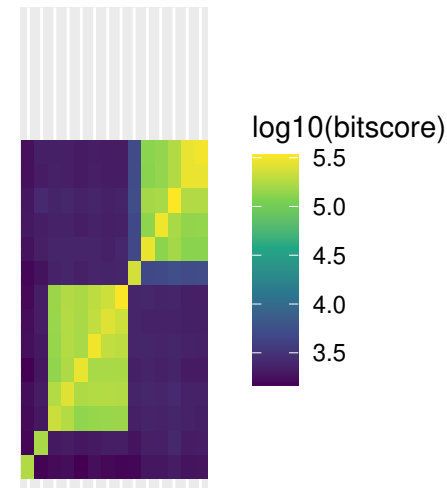


Gene functions

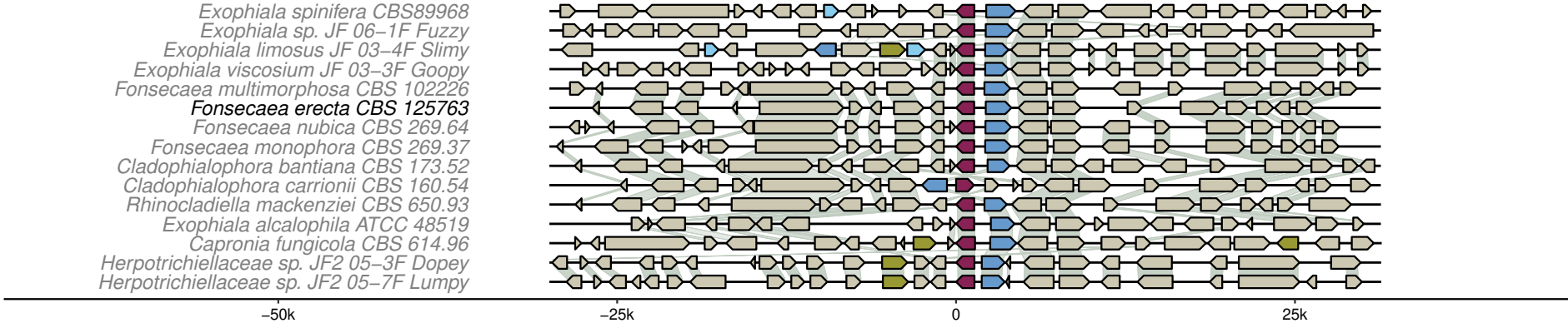
- T3PKS
- T1PKS
- aldo-keto reductase
- p450
- short-chain dehydrogenase
- transport

Amino acid identity

- 0.4
- 0.6
- 0.8
- 1.0



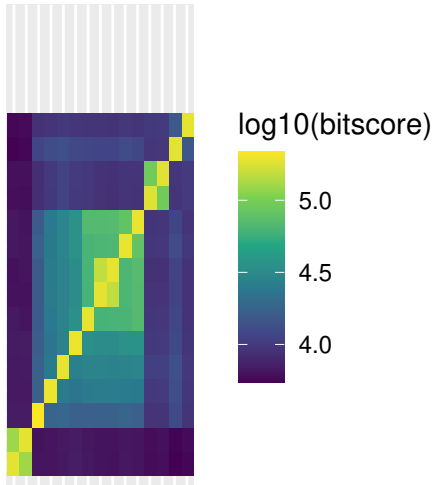
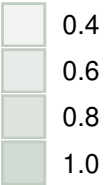
Cluster 5



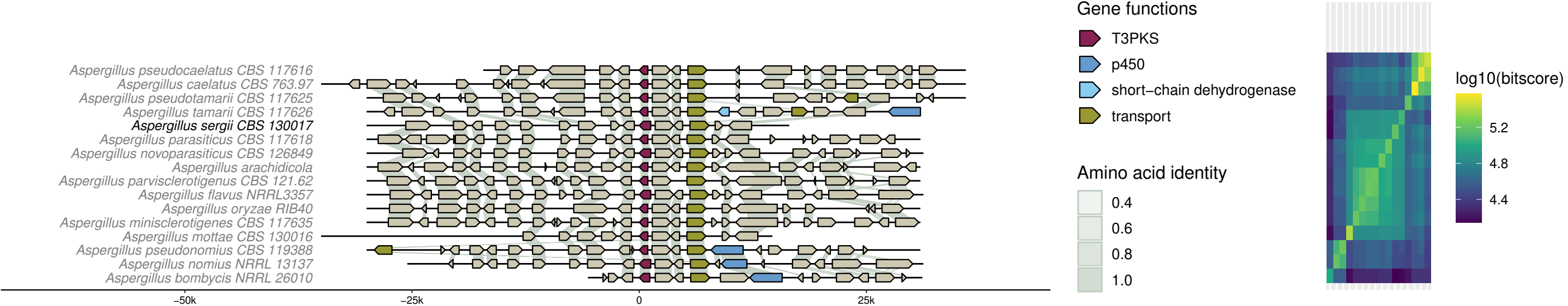
Gene functions

- T3PKS
- p450
- short-chain dehydrogenase
- transport

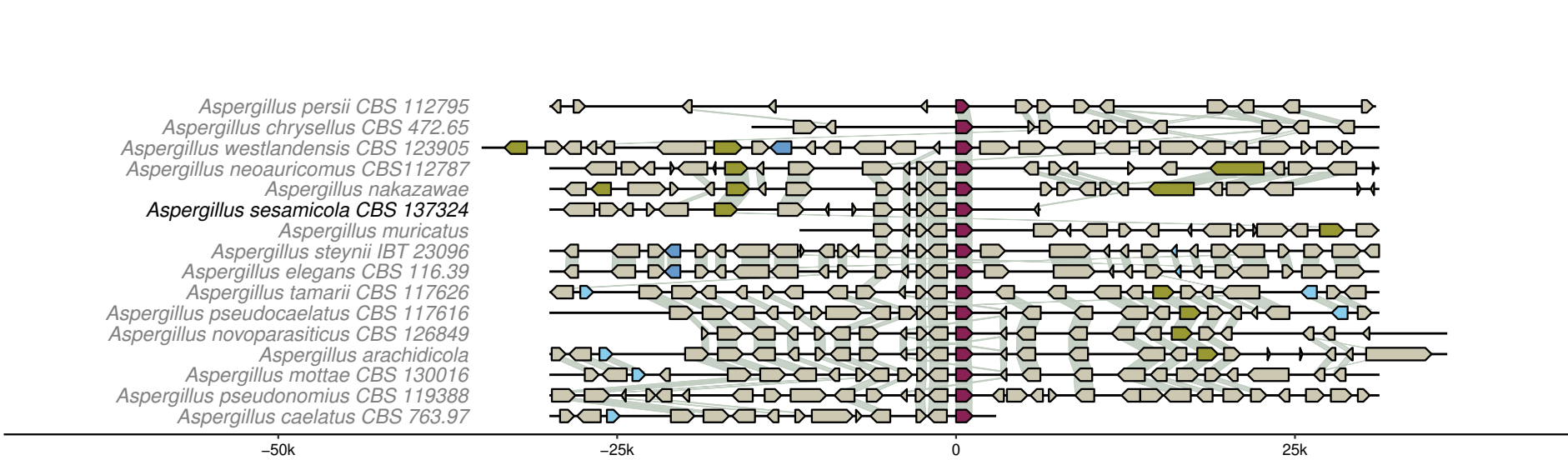
Amino acid identity



Cluster 6



Cluster 7

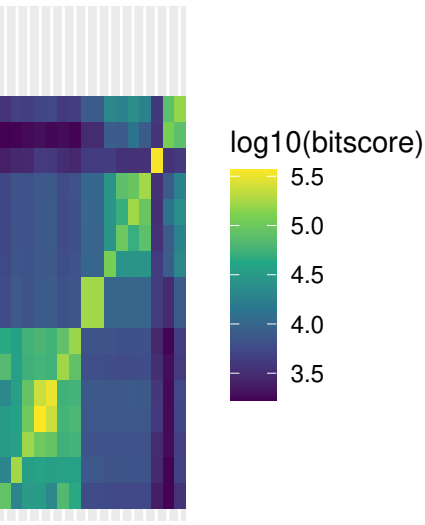


Gene functions

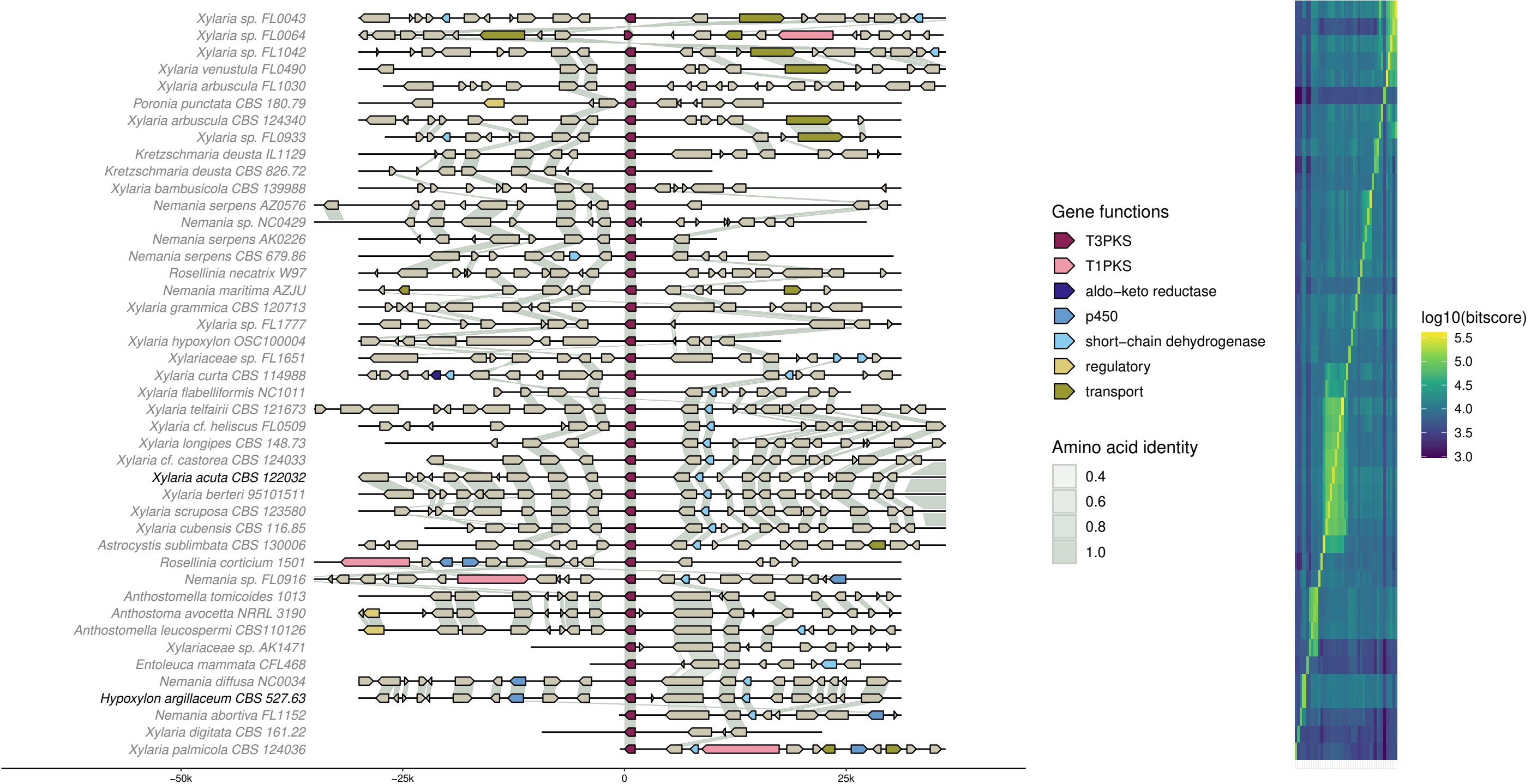
- T3PKS
- p450
- short-chain dehydrogenase
- transport

Amino acid identity

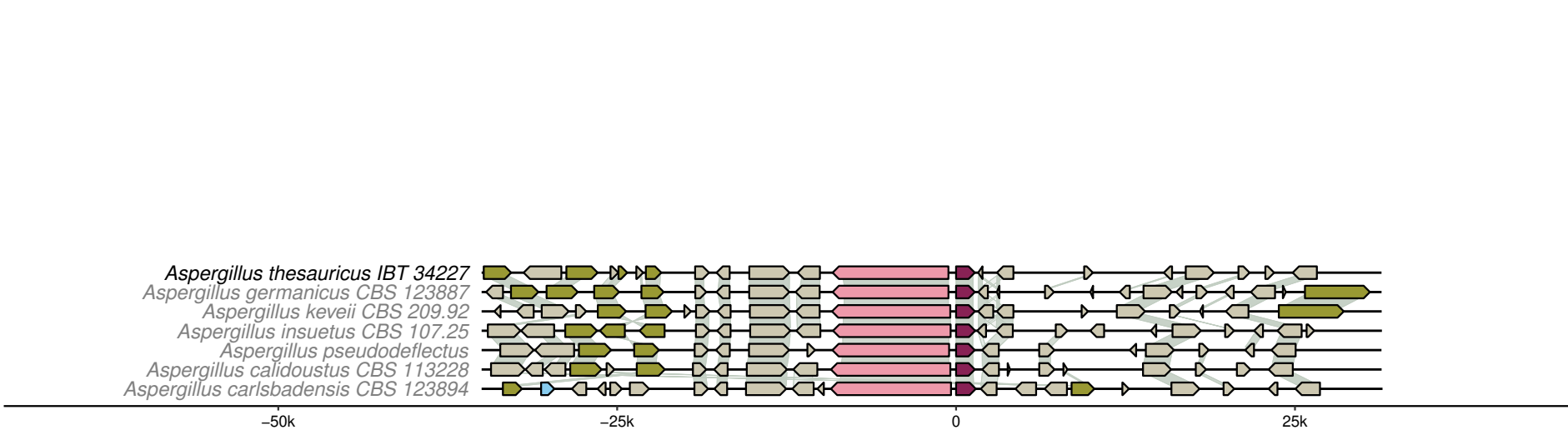
- 0.4
- 0.6
- 0.8
- 1.0



Cluster 8



Cluster 9

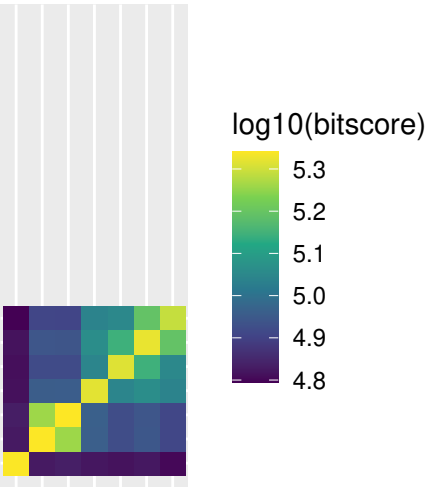


Gene functions

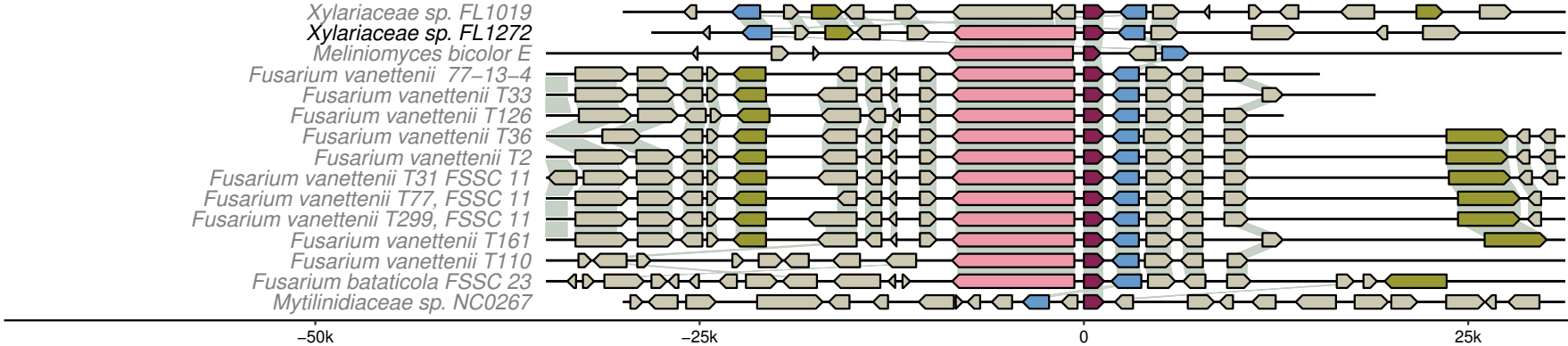
- T3PKS
- T1PKS
- short-chain dehydrogenase
- transport

Amino acid identity

- 0.4
- 0.6
- 0.8
- 1.0



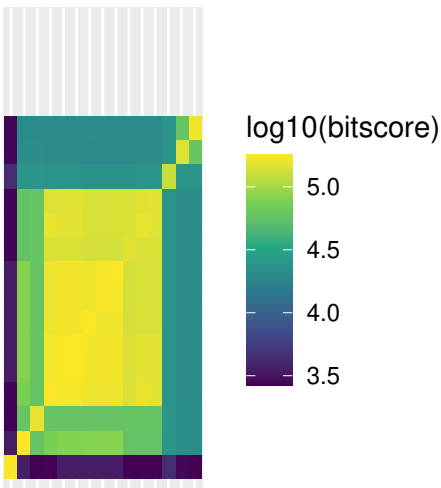
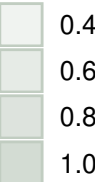
Cluster 10



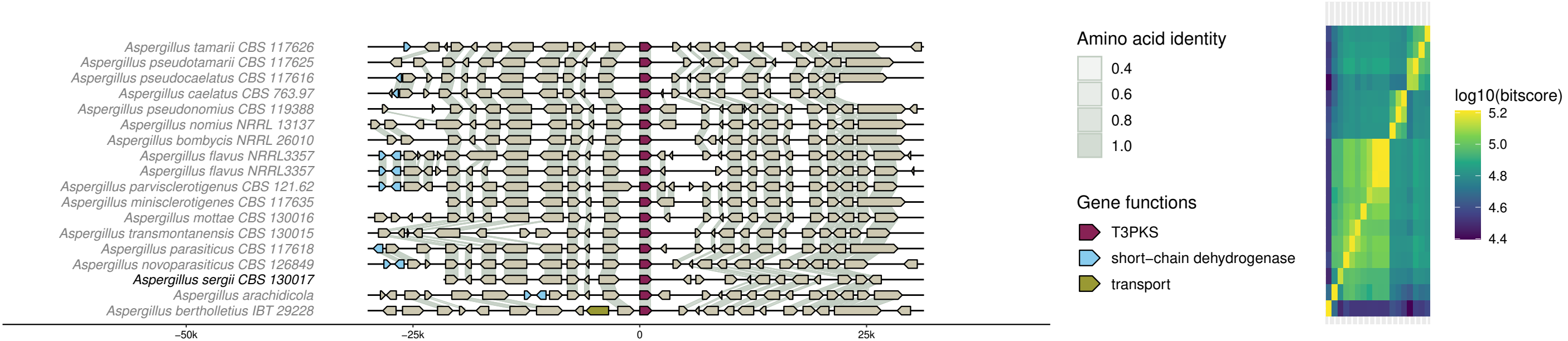
Gene functions

- T3PKS
- T1PKS
- p450
- transport

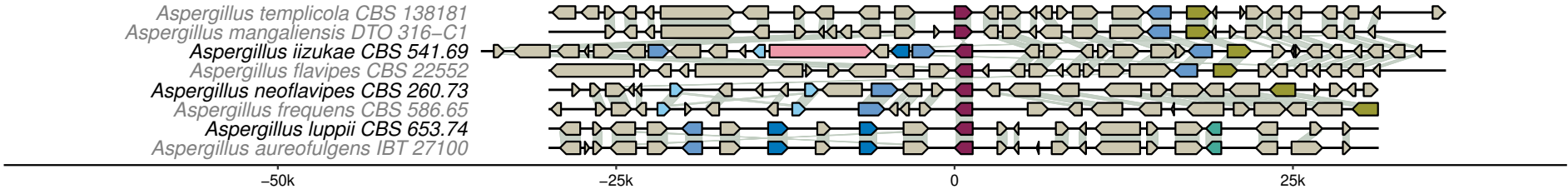
Amino acid identity



Cluster 11



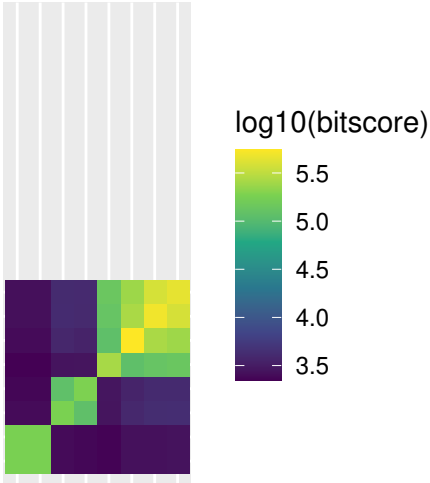
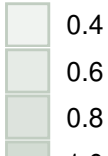
Cluster 12



Gene functions

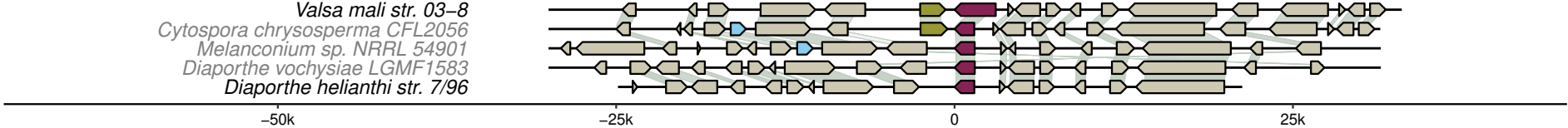
- T3PKS
- T1PKS
- DMAT
- p450
- short-chain dehydrogenase
- glycosyl hydrolase
- transport

Amino acid identity

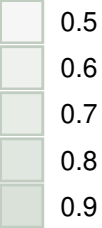


Cluster 13

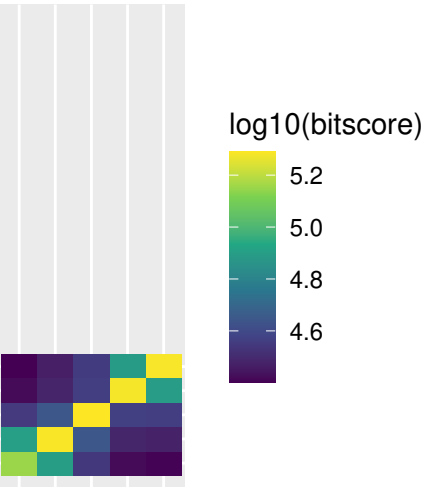
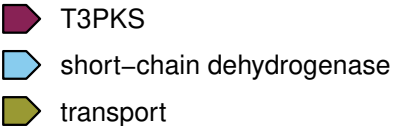
Valsa mali str. 03-8
Cytospora chrysosperma CFL2056
Melanconium sp. NRRL 54901
Diaporthe vochysiae LGMF1583
Diaporthe helianthi str. 7/96



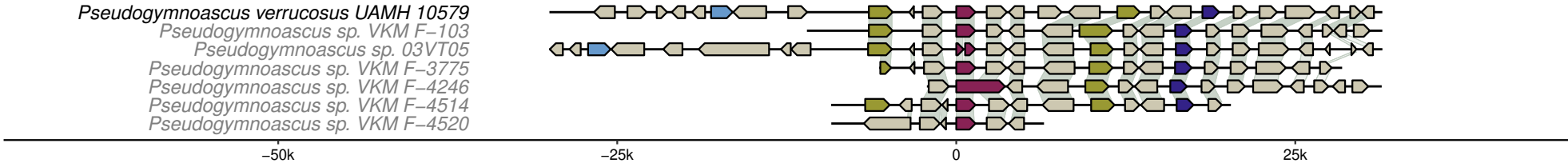
Amino acid identity



Gene functions



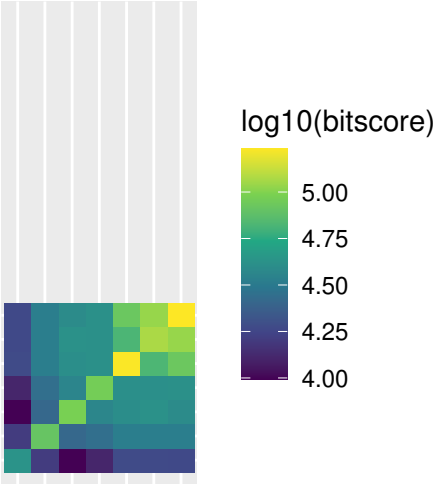
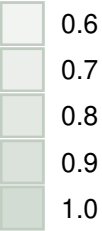
Cluster 14



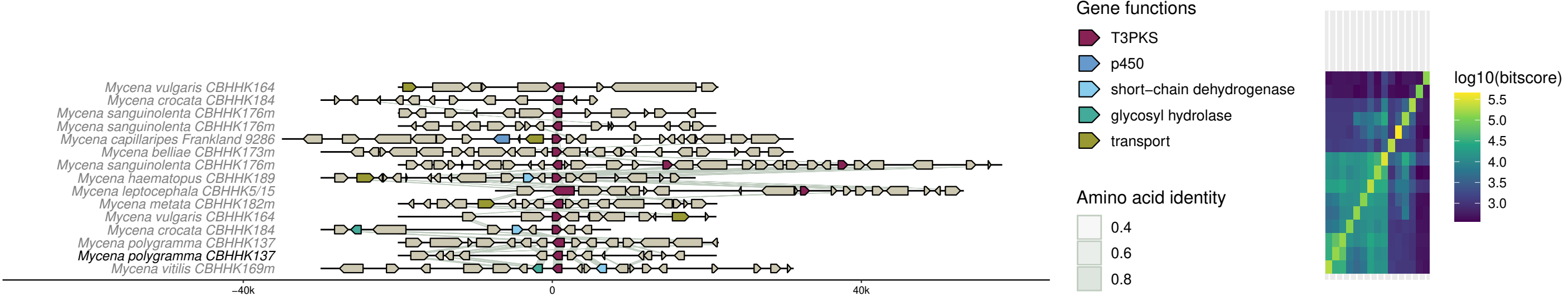
Gene functions

- T3PKS
- aldo-keto reductase
- p450
- transport

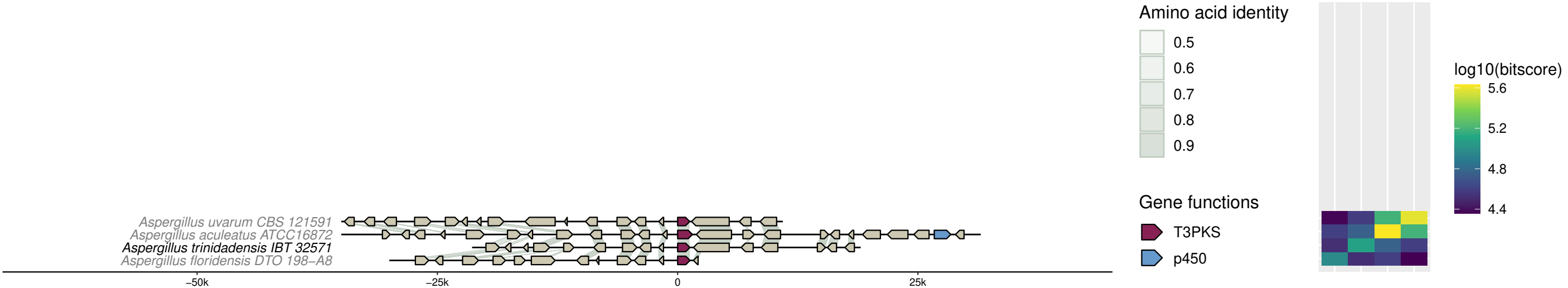
Amino acid identity



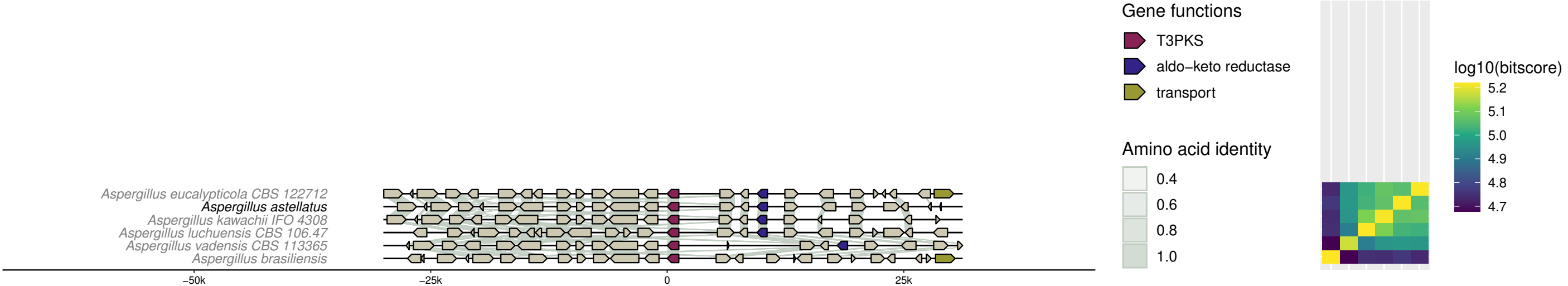
Cluster 15



Cluster 16

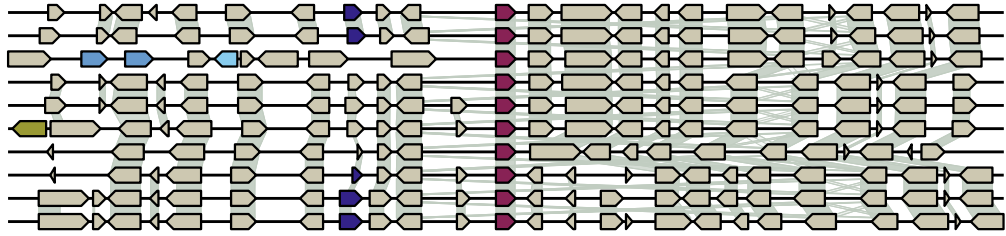


Cluster 17

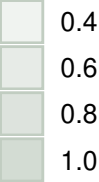


Cluster 18

Aspergillus tubingensis
Aspergillus costaricaensis CBS 115574
Aspergillus neoniger CBS 115656
Aspergillus niger NRRL3
Aspergillus niger ATCC 1015
Aspergillus niger (phoenicis Corda) Thom ATCC 13157
Aspergillus welwitschiae CBS139.54b
Aspergillus niger van Tieghem ATCC 13496
Aspergillus niger CBS 513.88
Aspergillus niger (lacticoffeatus) CBS 101883

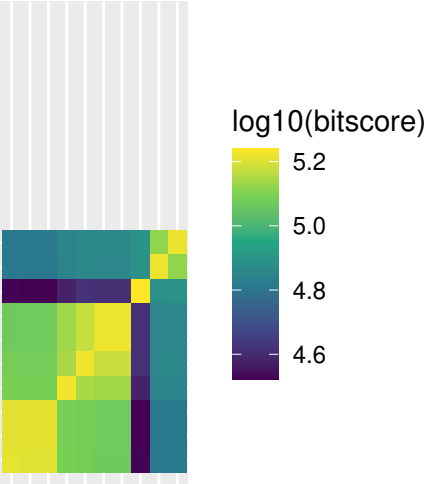


Amino acid identity

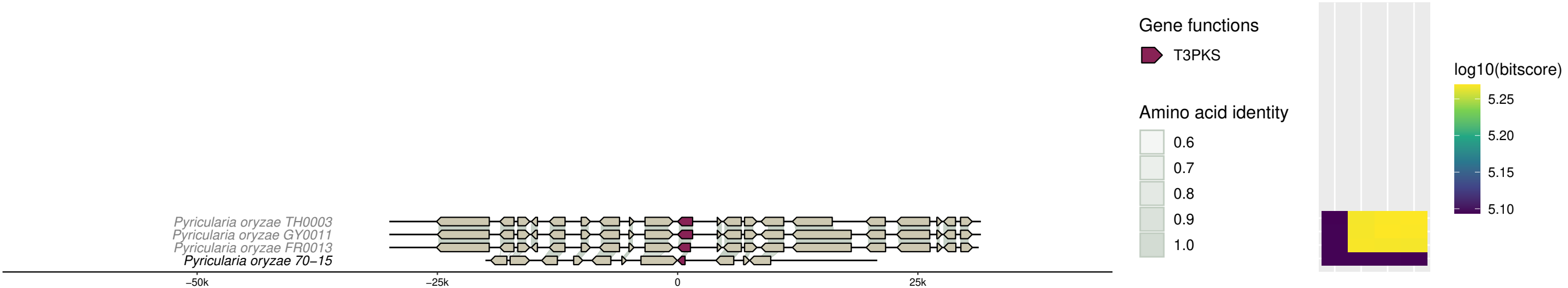


Gene functions

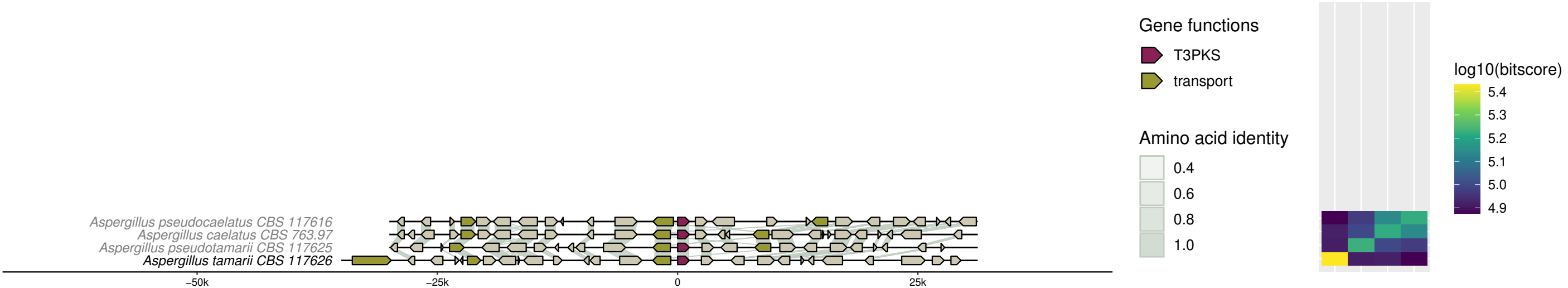
- T3PKS
- aldo-keto reductase
- p450
- short-chain dehydrogenase
- transport



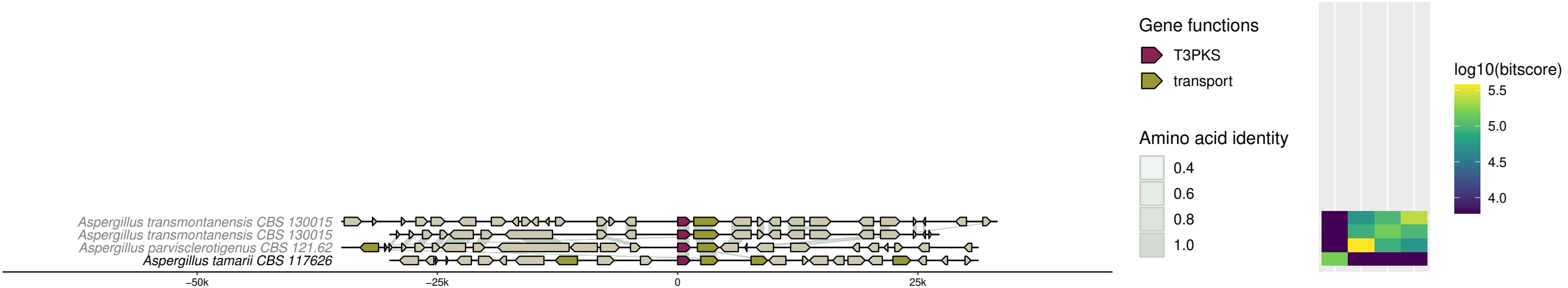
Cluster 19



Cluster 20

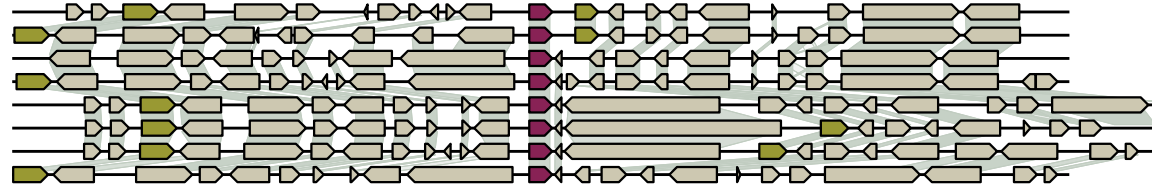


Cluster 21



Cluster 22

Trichophyton verrucosum HKI 0517
Arthroderma benhamiae CBS 112371
Trichophyton violaceum CMCC(F)T3I
Trichophyton rubrum CBS 118892
Trichophyton tonsurans CBS 112818
Trichophyton mentagrophytes TIMM 2789
Trichophyton equinum CBS 127.97
Nannizzia gypsea CBS 118893

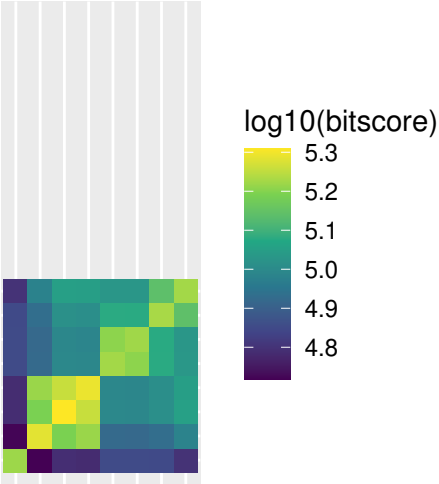
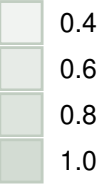


Gene functions

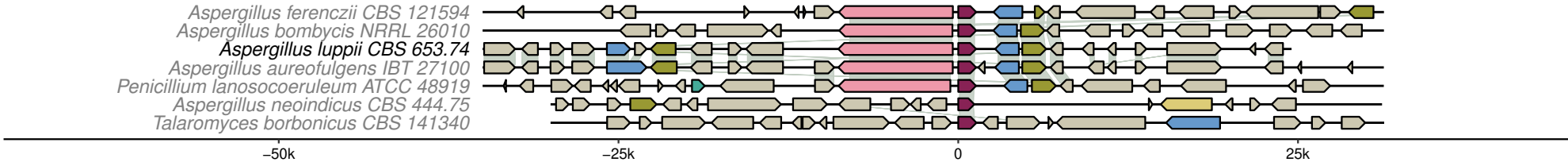
T3PKS

transport

Amino acid identity



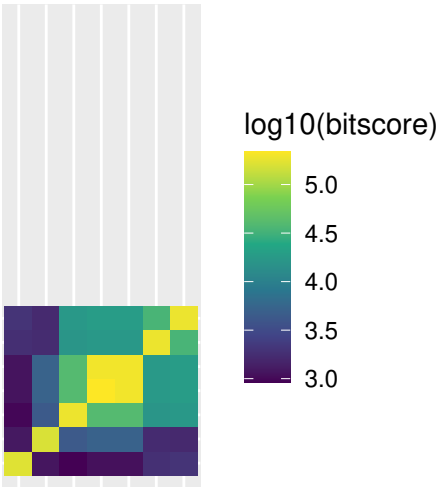
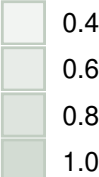
Cluster 23



Gene functions

- T3PKS
- T1PKS
- p450
- glycosyl hydrolase
- regulatory
- transport

Amino acid identity



Cluster 24

