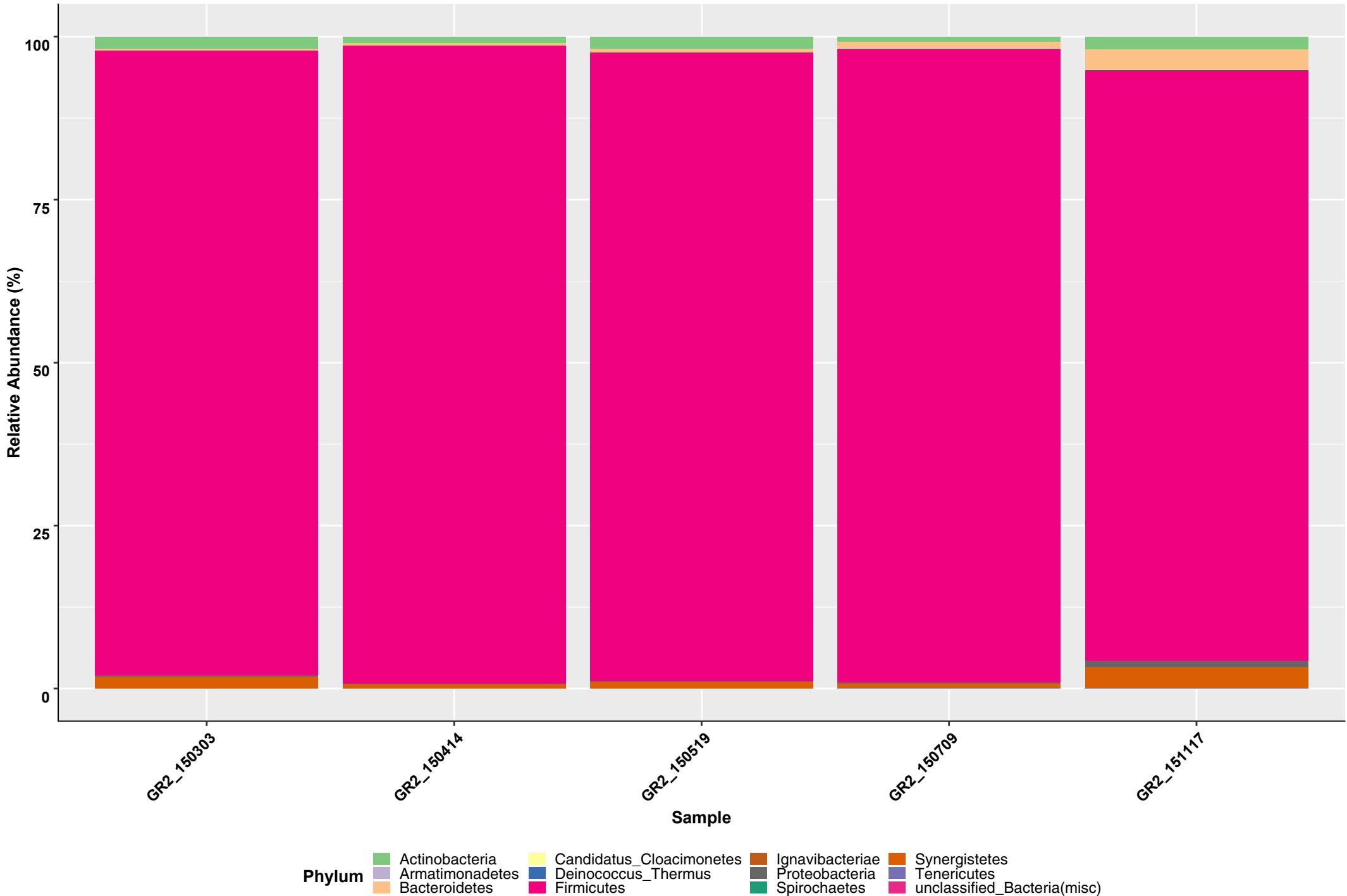
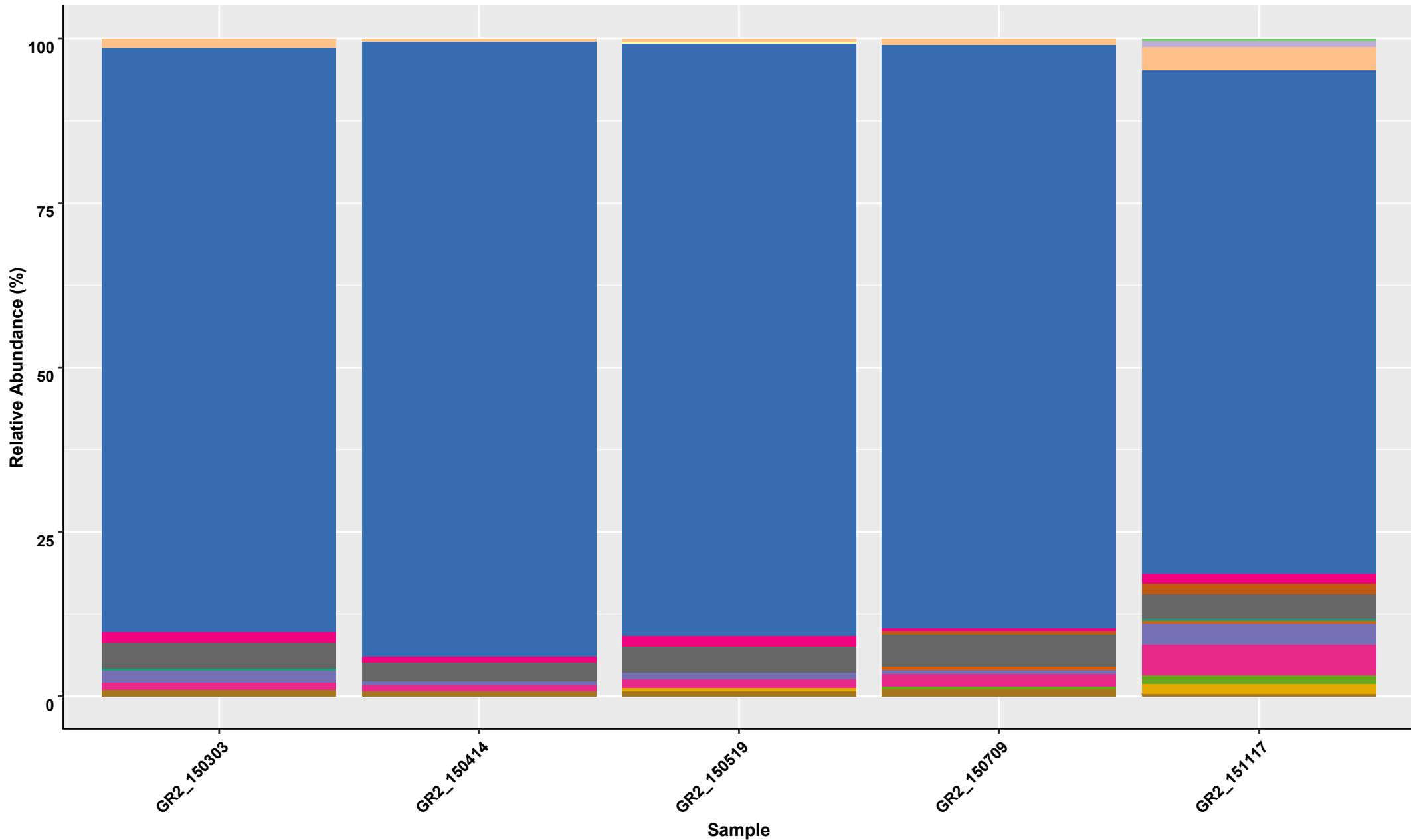


Figure E1 – Phylum level taxonomic assignments of the FTHFS gene sequence data analysis of reverse reads with AcetoScan at clustering threshold 100 %



**Figure E2 - Class level taxonomic assignments of the FTHFS gene sequence data analysis of reverse reads with AcetoScan at clustering threshold 100 %(> 0.25 %)**



## Class

The legend consists of two rows of colored squares corresponding to taxonomic groups. The first row includes Actinobacteria (green), Bacteroidia (yellow), Cytophagia (orange), Negativicutes (dark orange), and unclassified\_Bacteroidetes (light green). The second row includes Alphaproteobacteria (purple), Clostridia (blue), environmental samples (grey), Synergistia (medium purple), unclassified\_Firmicutes (yellow-orange), and x-Minor class (<0.25%) (brown).

Figure E3 - Order level taxonomic assignments of the FTHFS gene sequence data analysis of reverse reads with AcetoScan at clustering threshold 100 %(> 0.25 %)

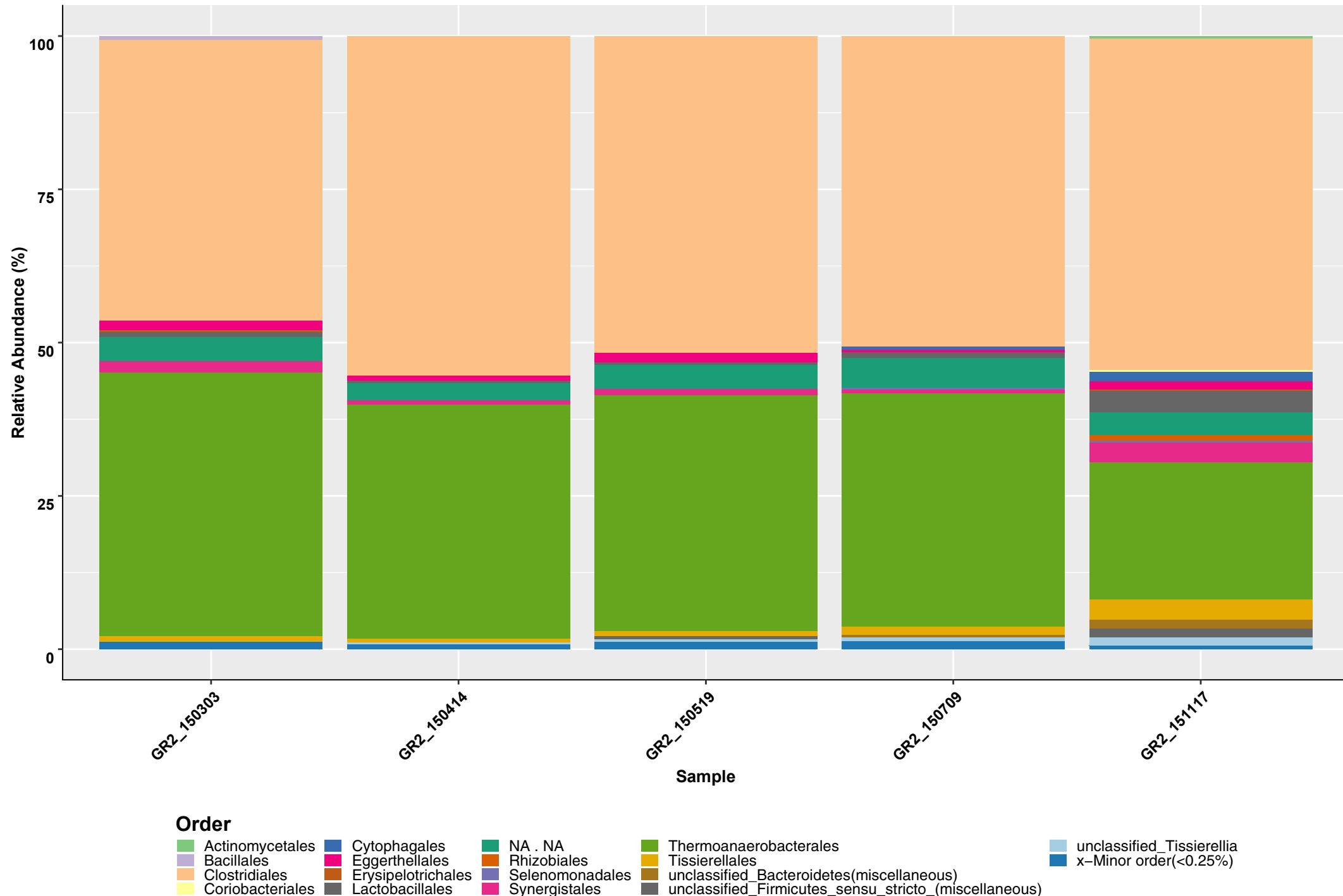


Figure E4 - Family level taxonomic assignments of the FTHFS gene sequence data analysis of reverse reads with AcetoScan at clustering threshold 100 %(> 1 %)

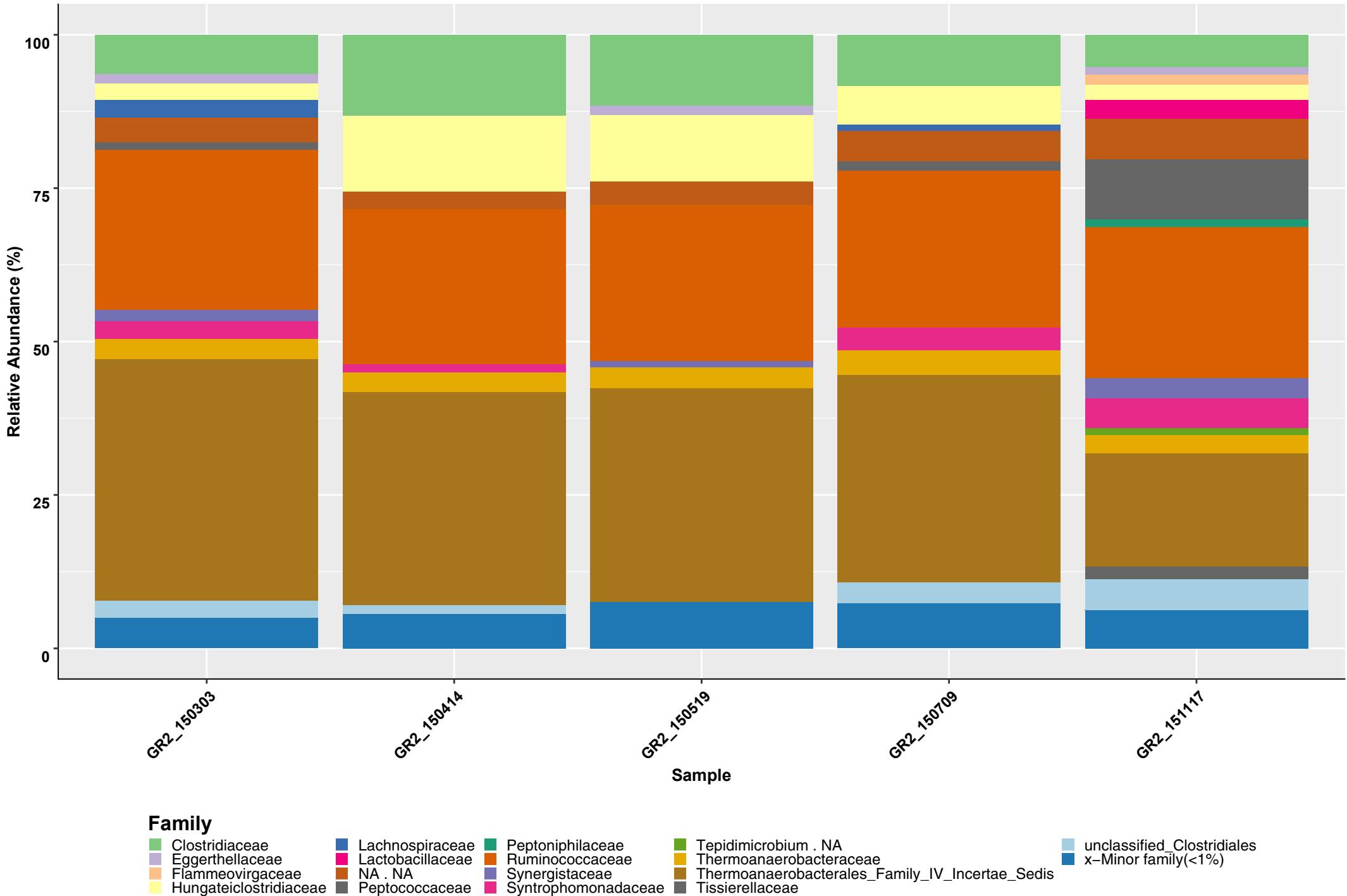
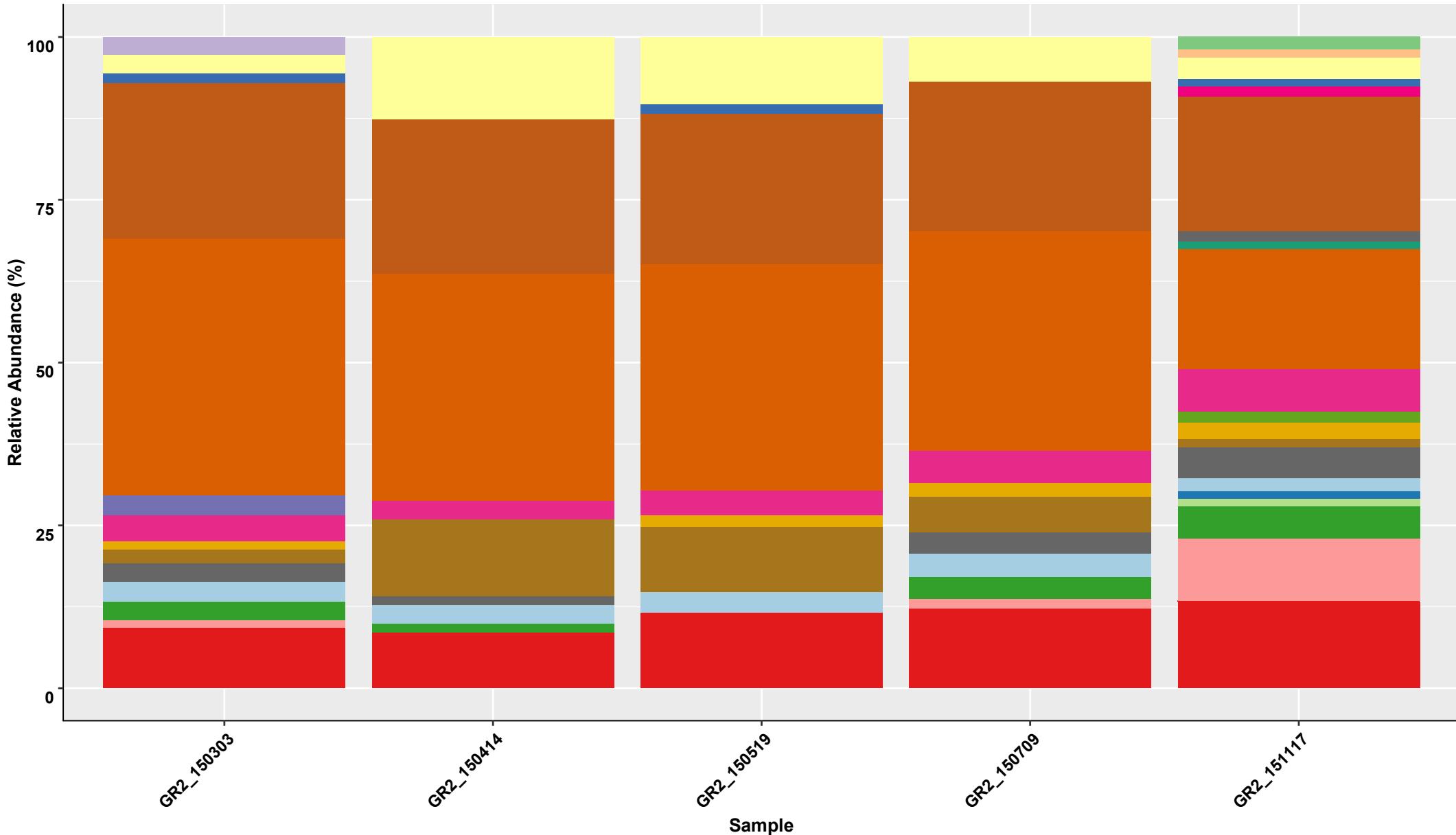


Figure E5 - Genus level taxonomic assignments of the FTHFS gene sequence data analysis of reverse reads with AcetoScan at clustering threshold 100 %(> 1 %)



#### Genus

Aminobacterium	Fabibacter	Maledivibacter	Syntrophomonas	unclassified_Peptococcaceae
Butyrivibrio	Flavonifractor	NA . NA	Tepidanaerobacter	x-Minor genus(<1%)
Caldisalinibacter	Lactobacillus	Pediococcus	Tepidimicrobium	
Clostridium	Lagerella	Phocea	Tissierella	
Eggerthella	Mahella	Pseudobacteroides	unclassified_Clostridiales(misc)	

Figure E6 – Species level taxonomic assignments of the FTHFS gene sequence data analysis of reverse reads with AcetoScan at clustering threshold 100 %(> 5 %)

