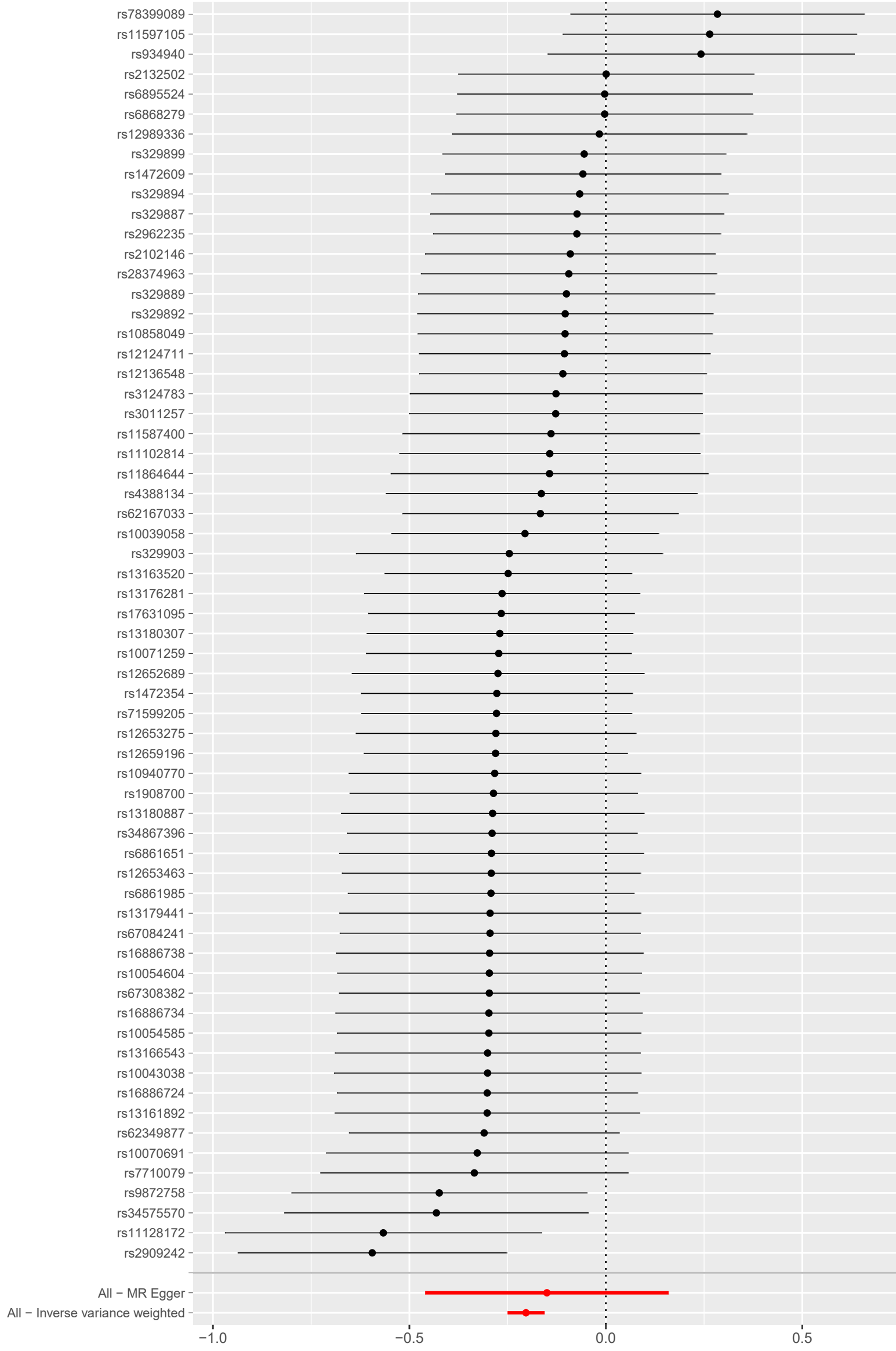
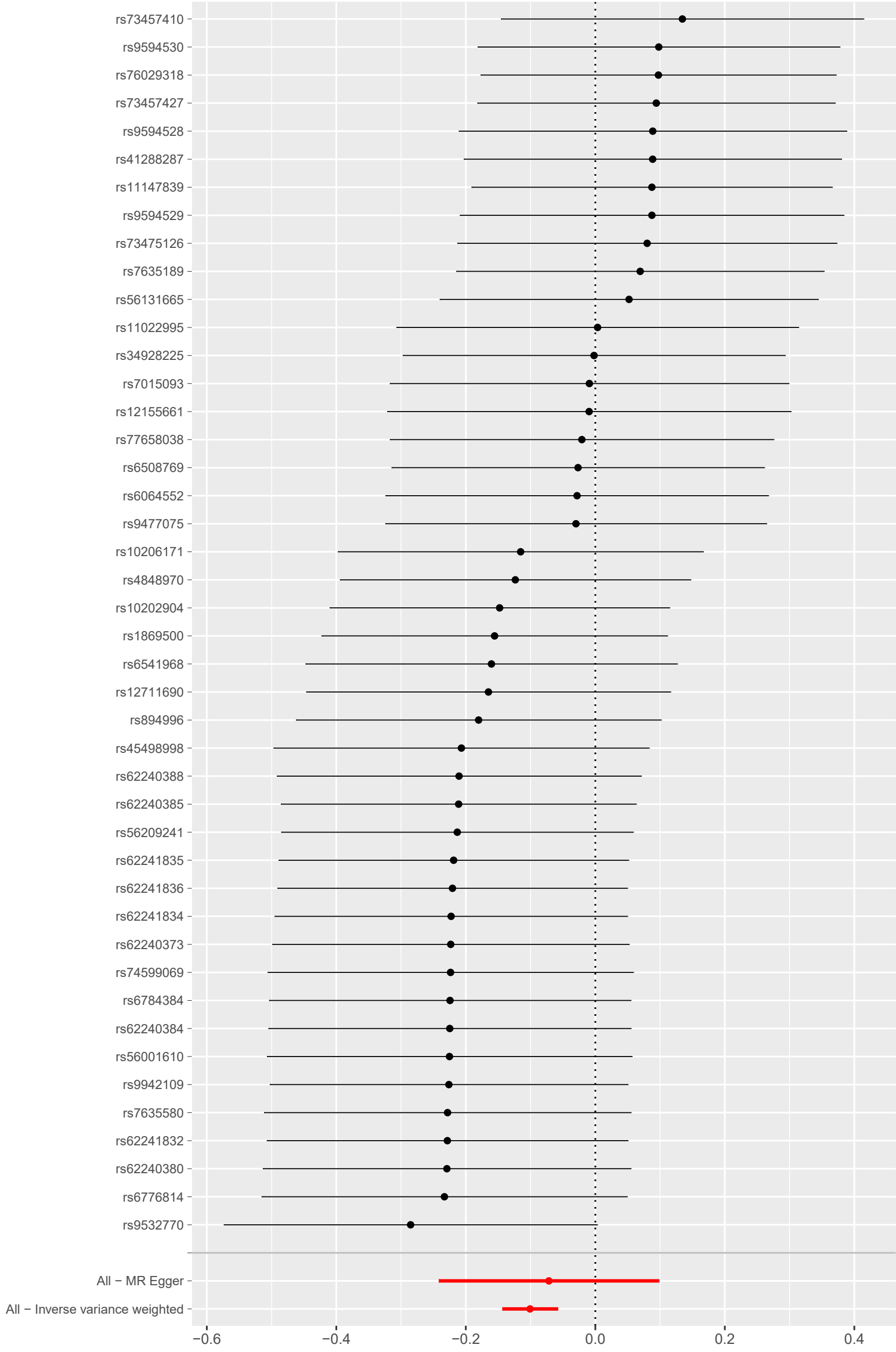


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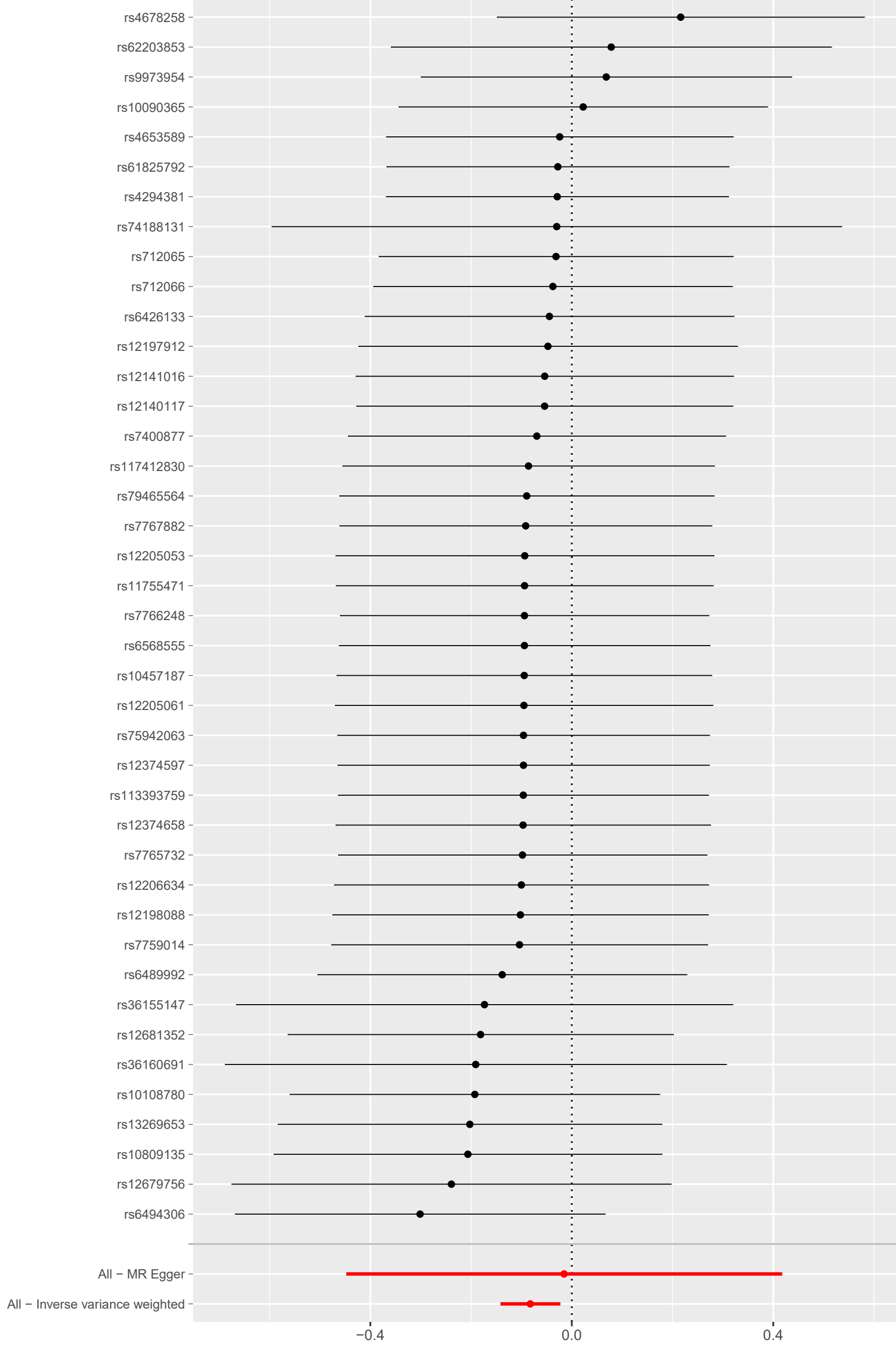
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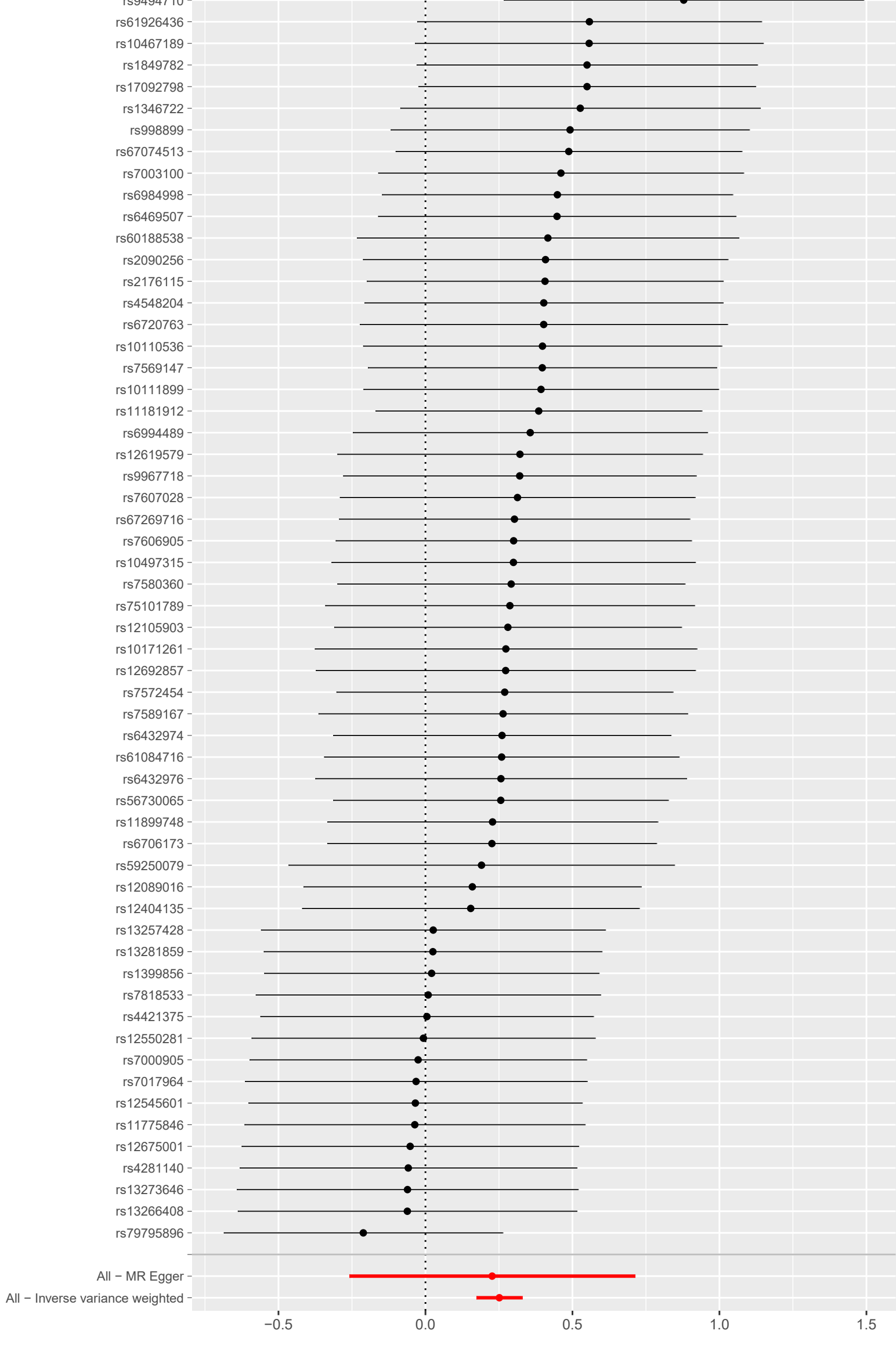
MR effect size for genus.*Ruminococcusgnavusgroup* on EC

MR effect size for phylum.*Euryarchaeota* on EC

C



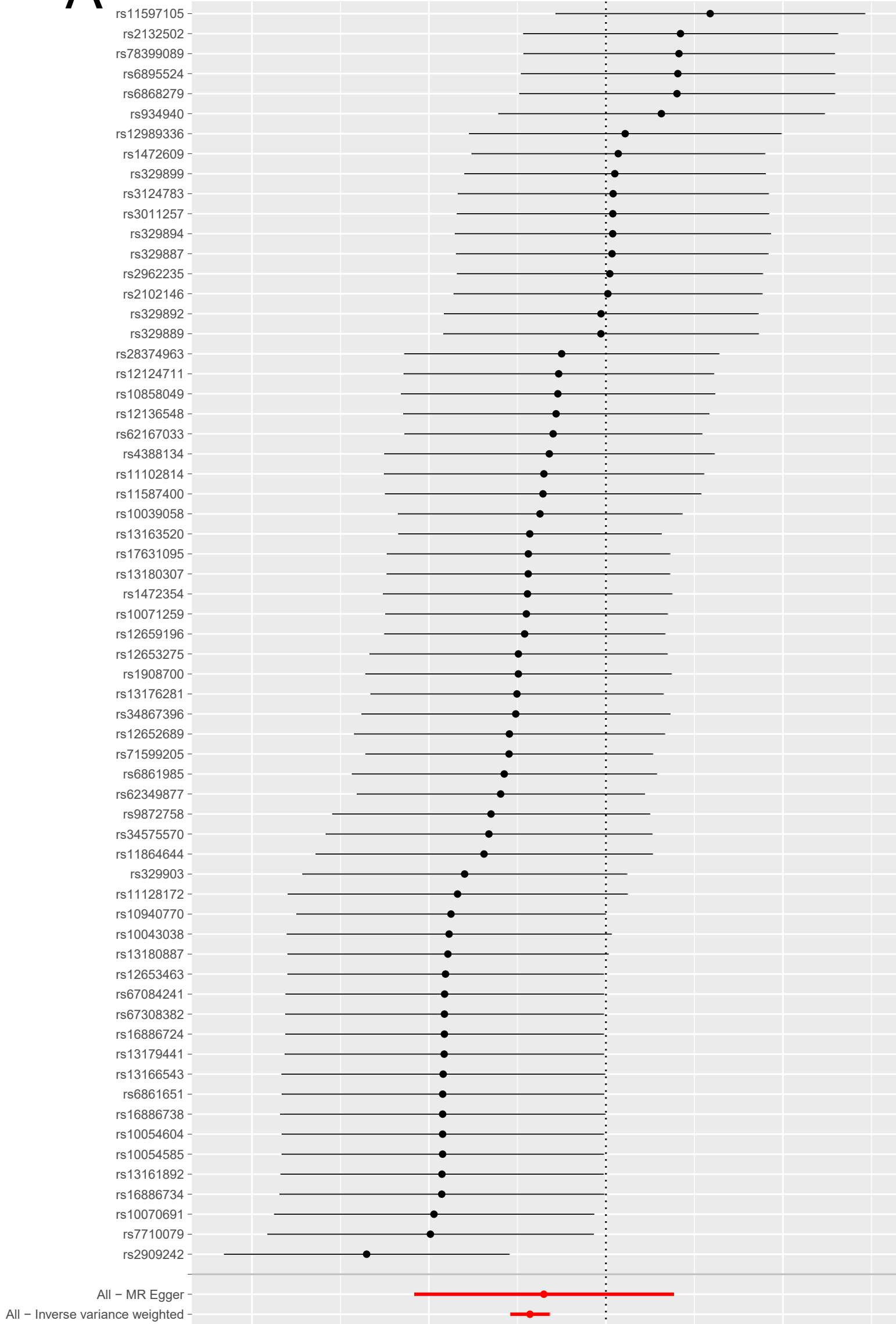
D



MR effect size for genus.*CandidatusSoleaferrea* on EC

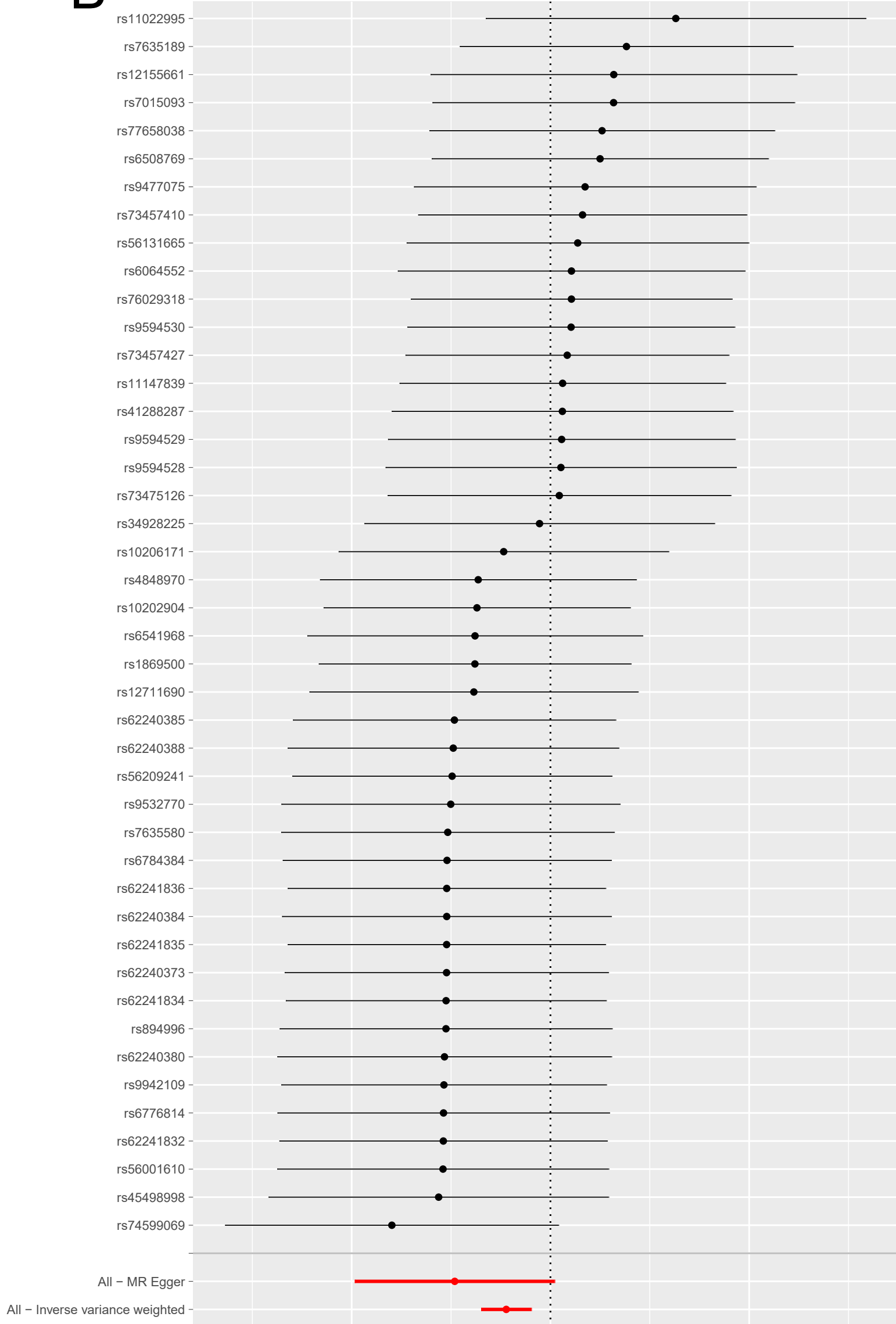
MR effect size for class.*Gammaproteobacteria* on EC

A



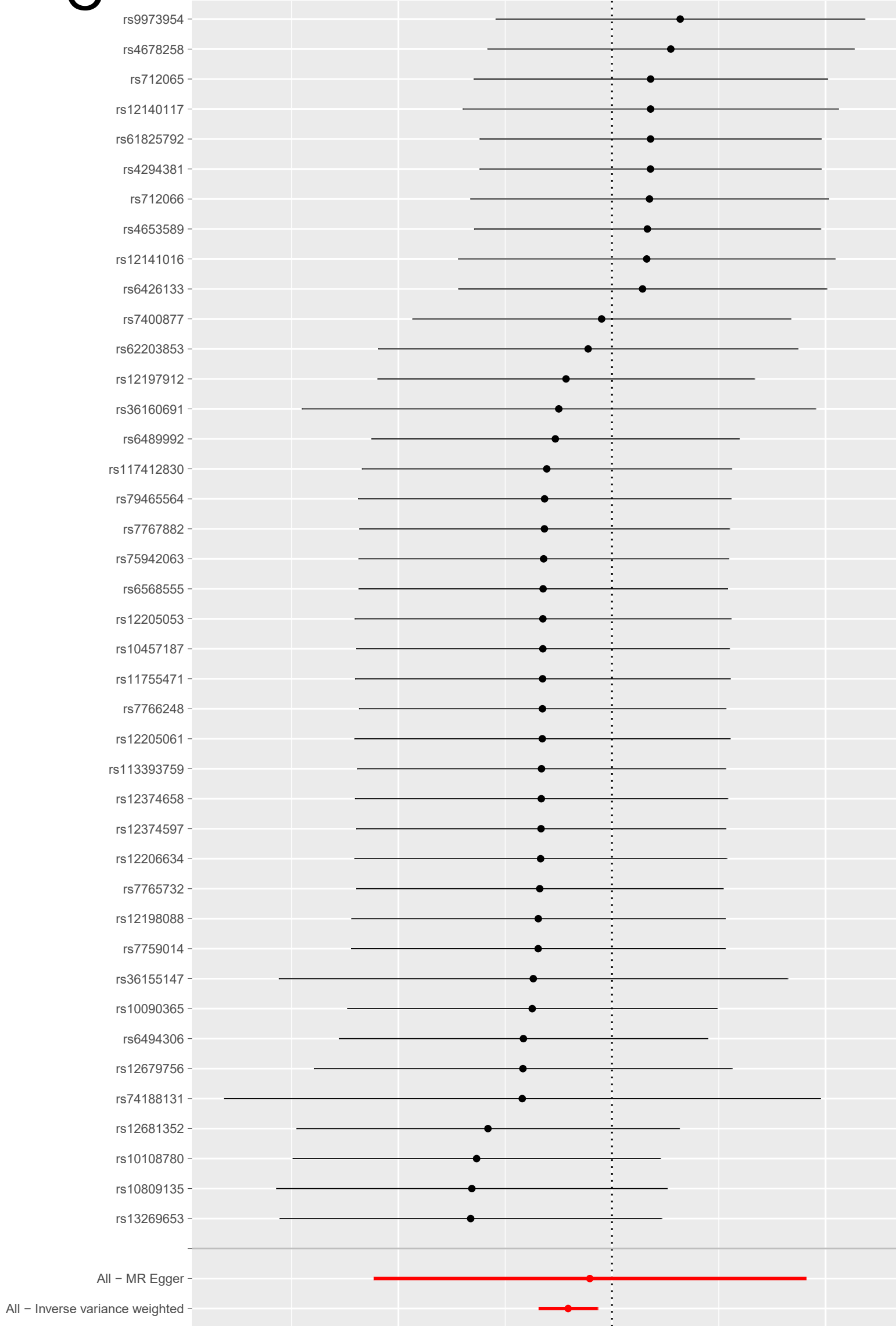
MR effect size for genus *Ruminococcusgnavusgroup* on ECEH

B



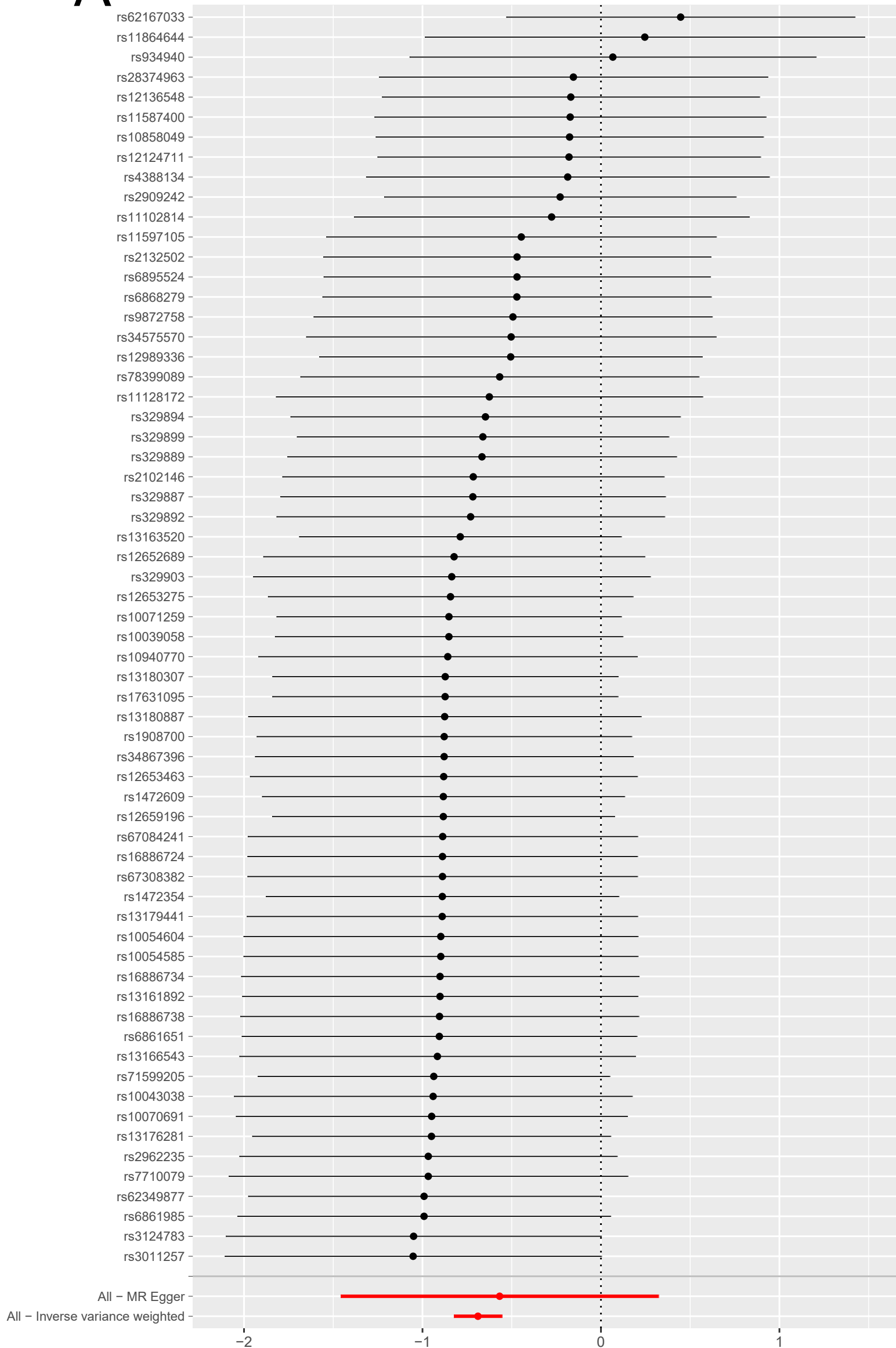
MR effect size for phylum *Euryarchaeota* on ECEH

C

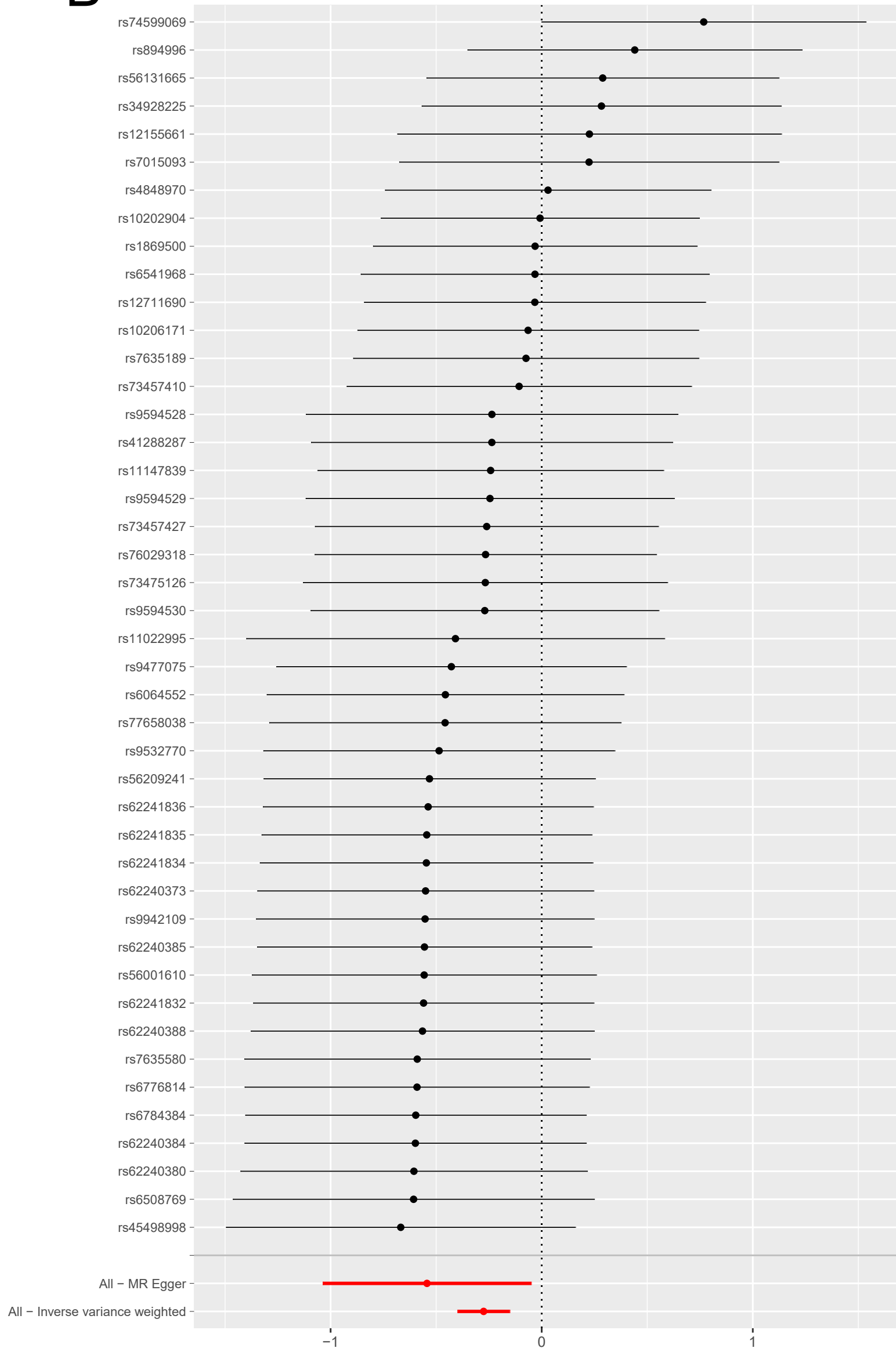


MR effect size for genus *CandidatusSoleaferrea* on ECEH

A

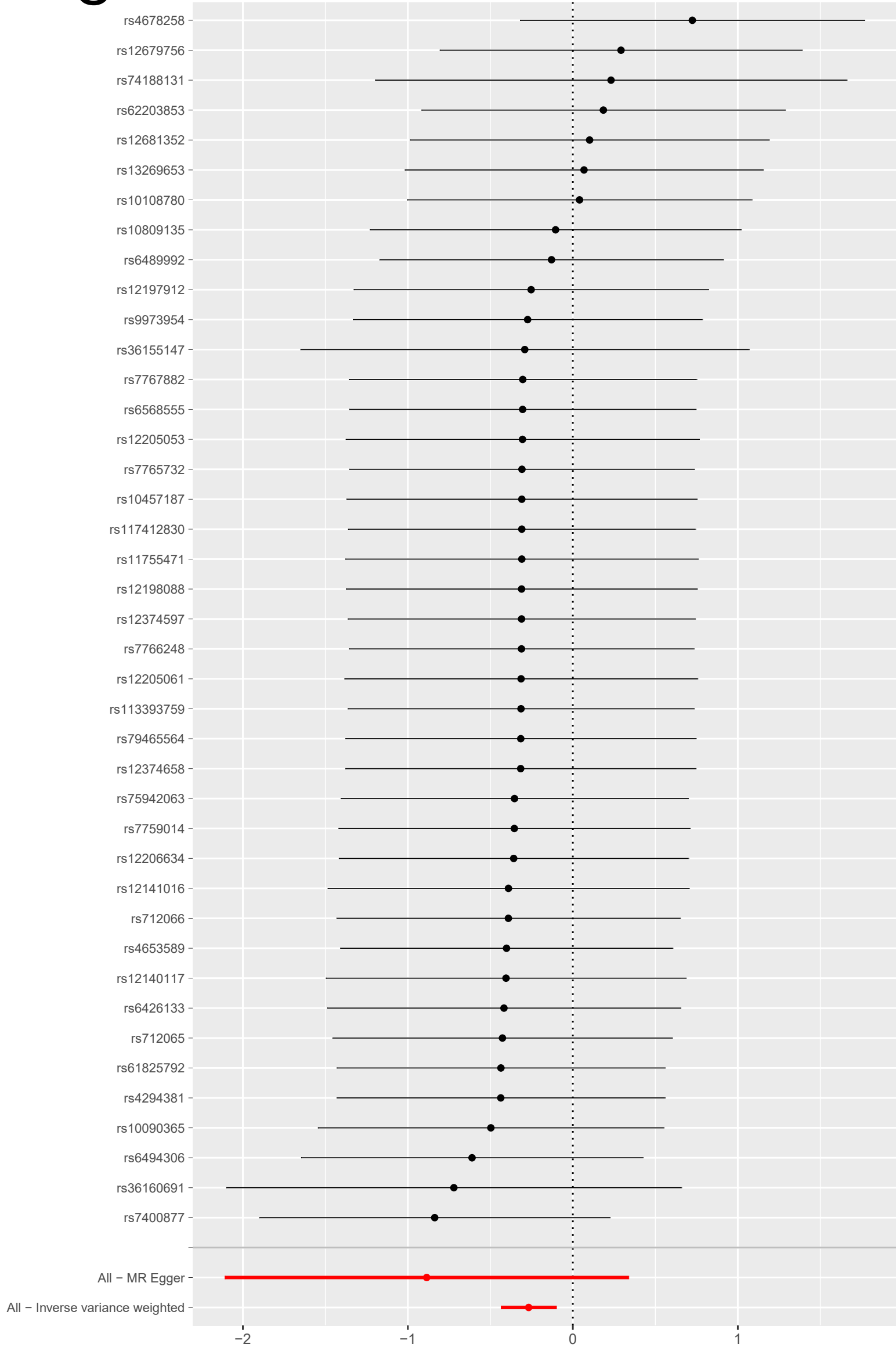


B

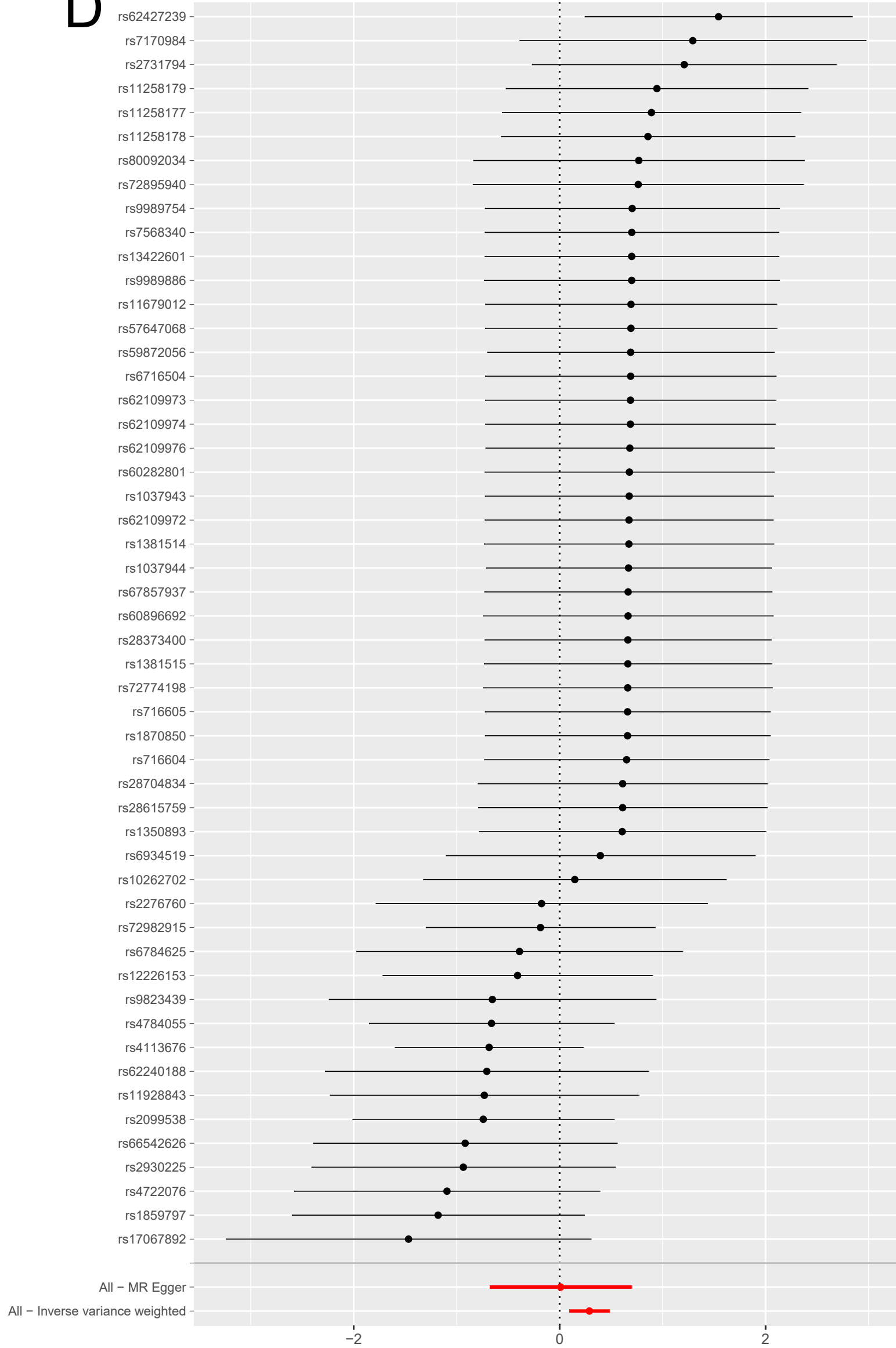


MR effect size for genus.*Ruminococcusgnavusgroup* on ECNEH MR effect size for phylum.*Euryarchaeota* on ECNEH

C



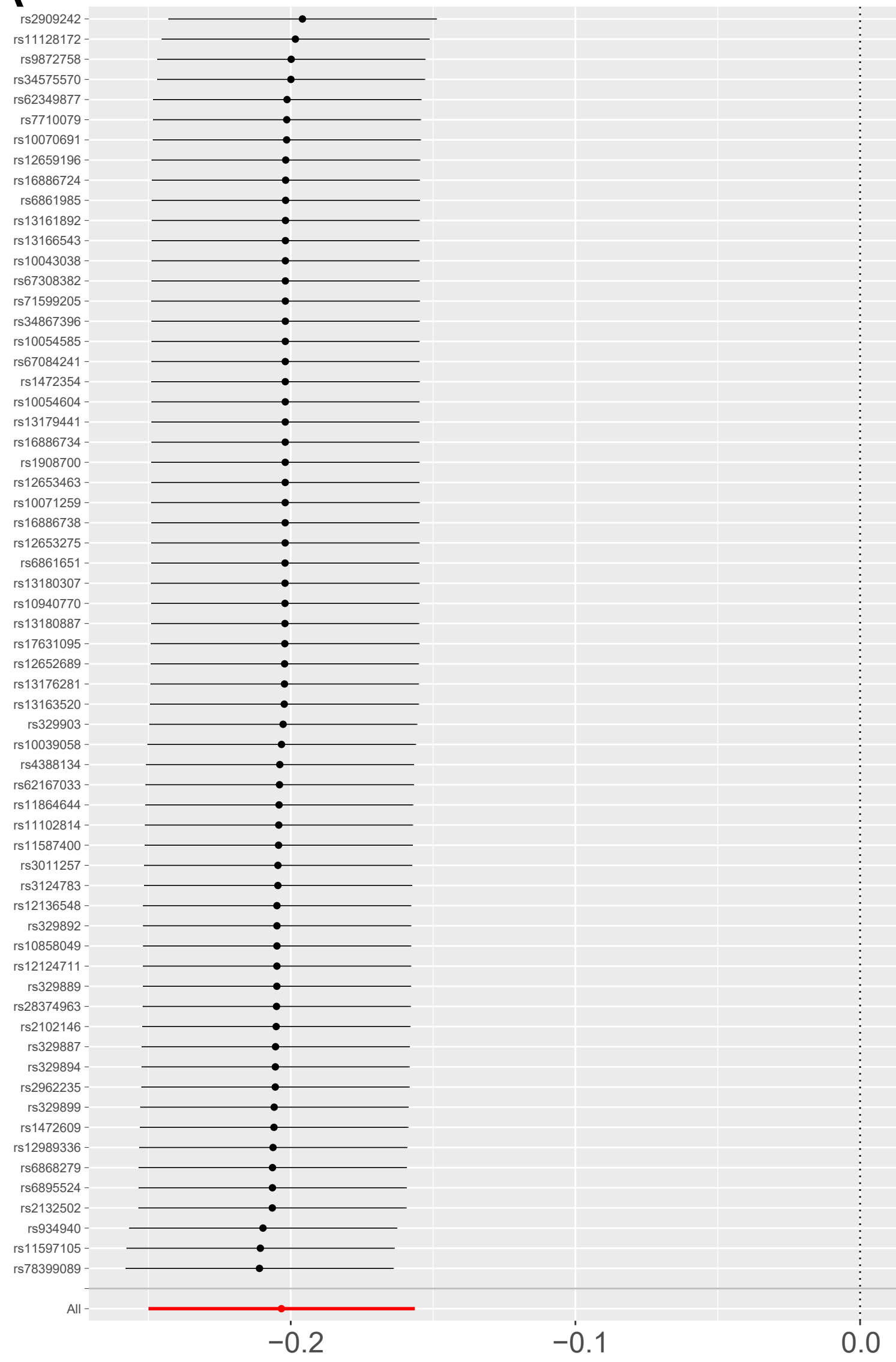
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MR effect size for genus.*CandidatusSoleaferrea* on ECNEH

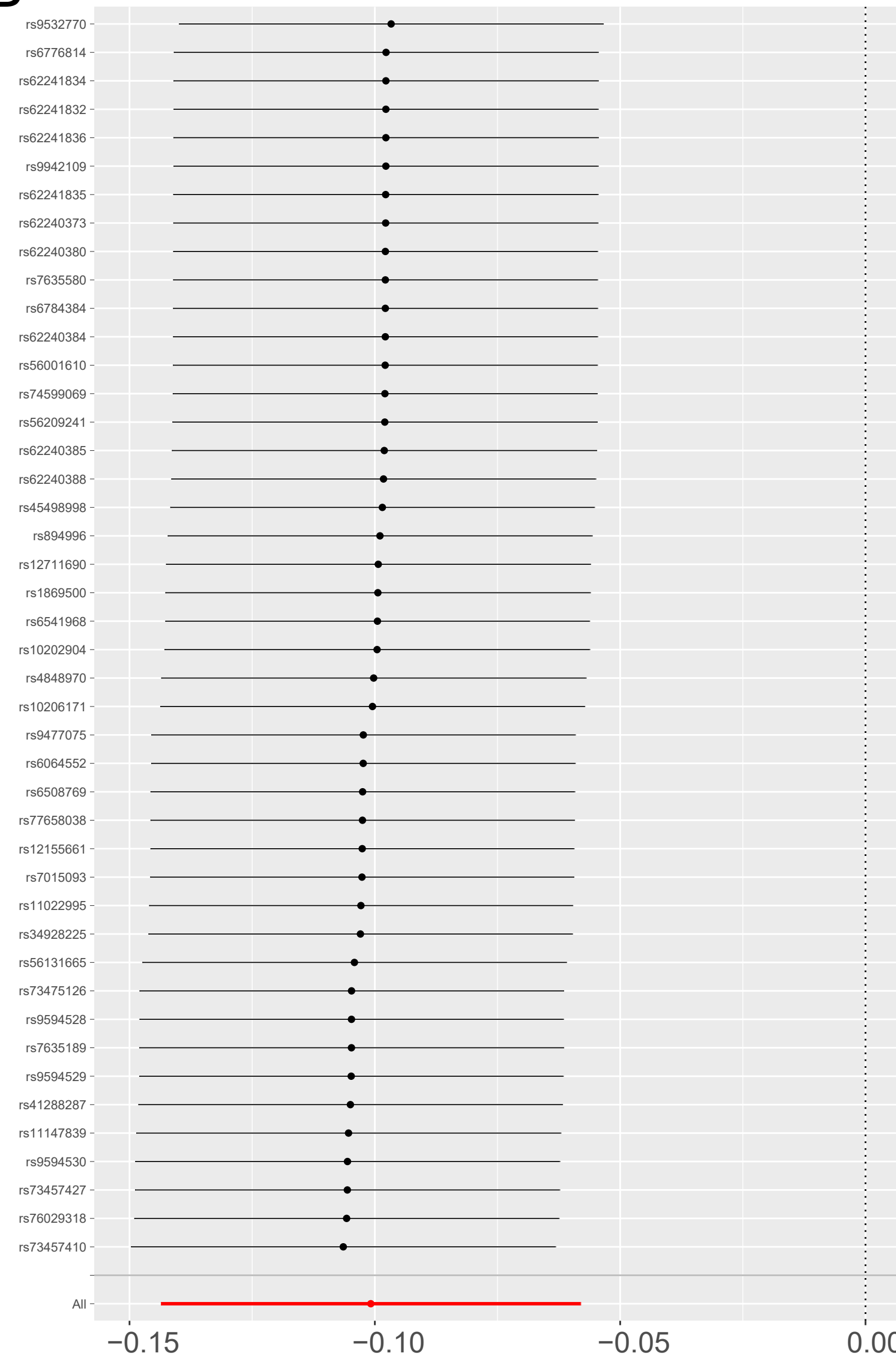
MR effect size for genus.*Intestinimonas* on ECNEH

A



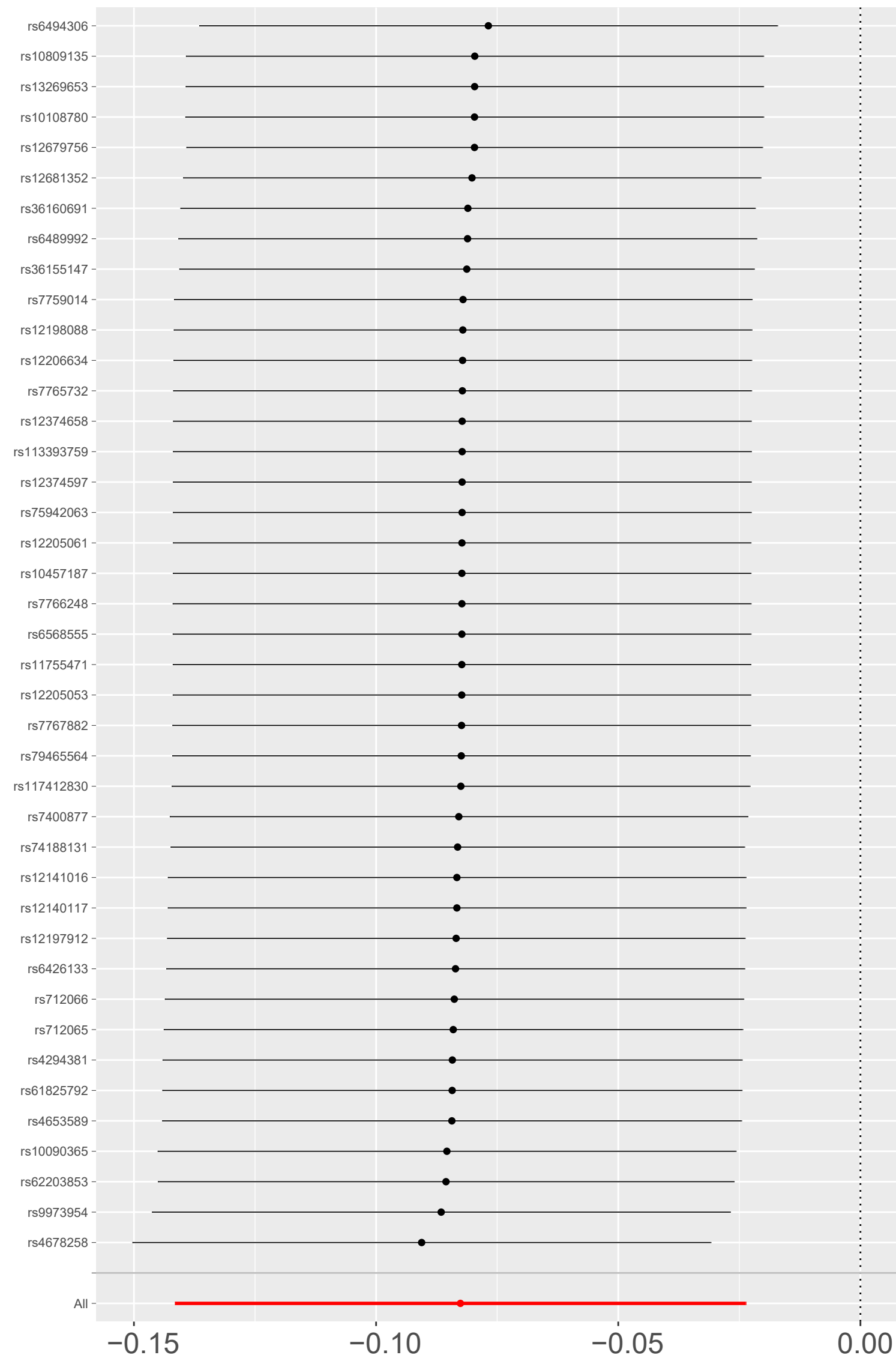
MR leave-one-out sensitivity analysis for genus.*Ruminococcusgnavusgroup* on EC

B



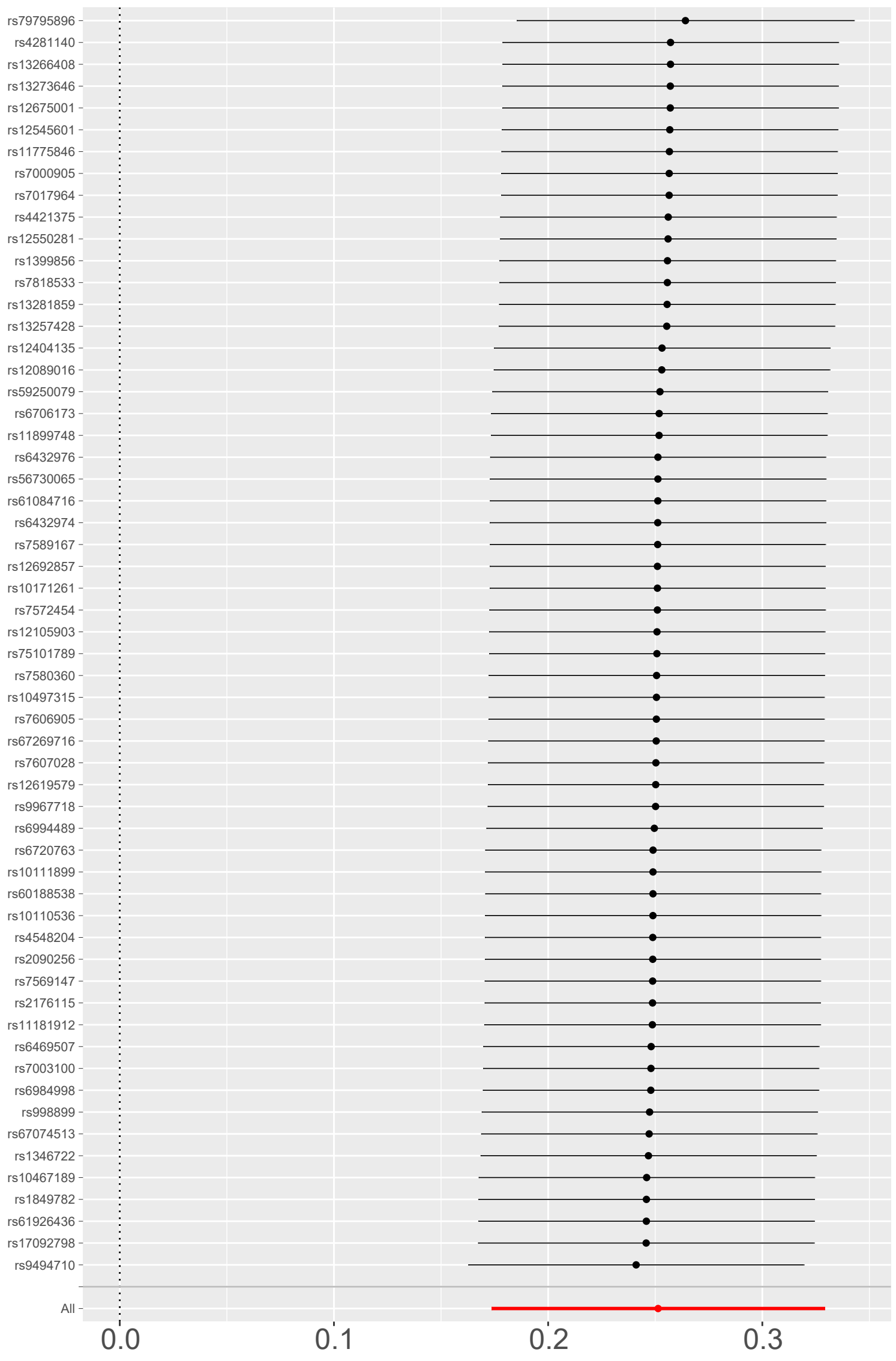
MR leave-one-out sensitivity analysis for phylum.*Euryarchaeota* on EC

C



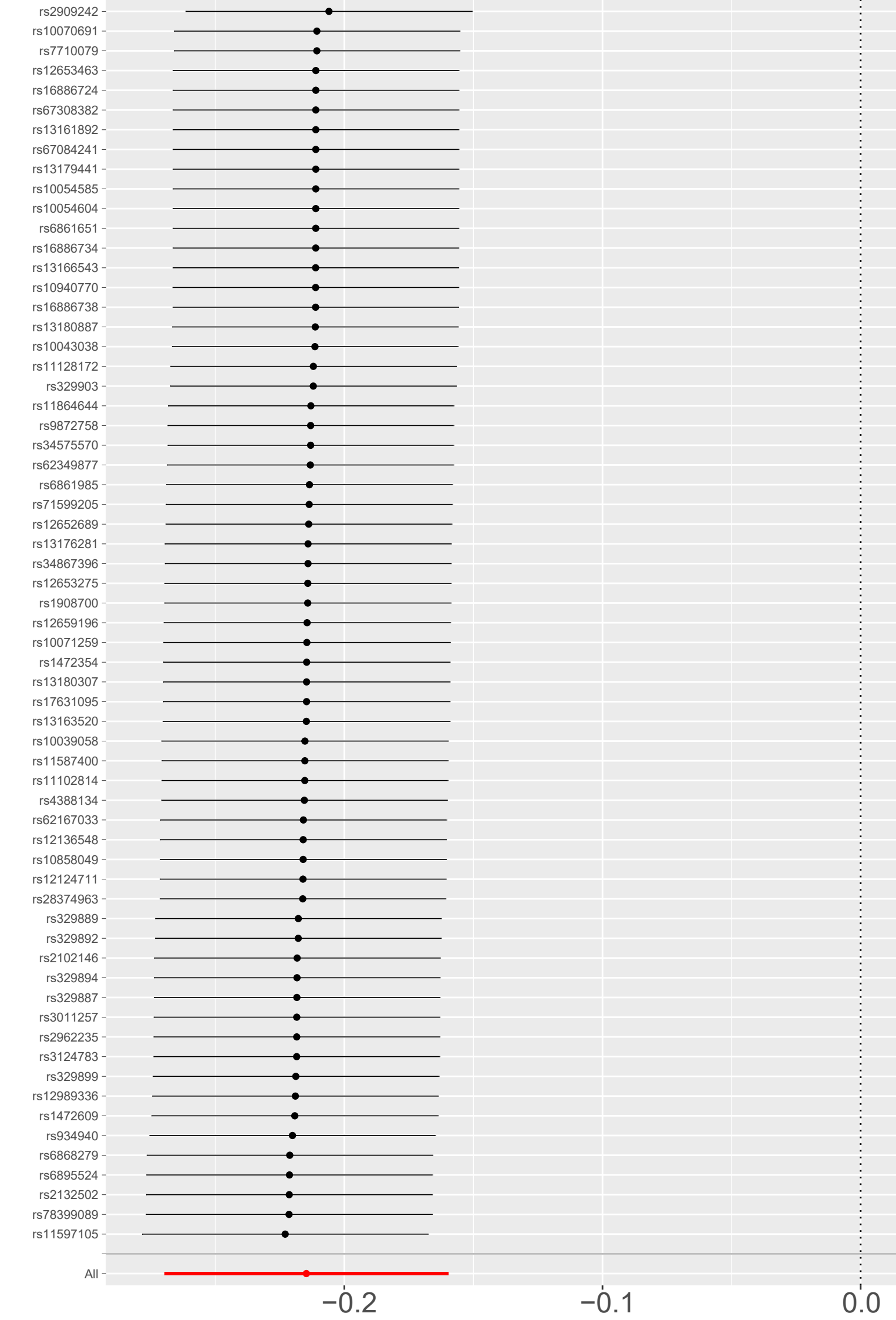
MR leave-one-out sensitivity analysis for genus.*CandidatusSoleaferrea* on EC

D



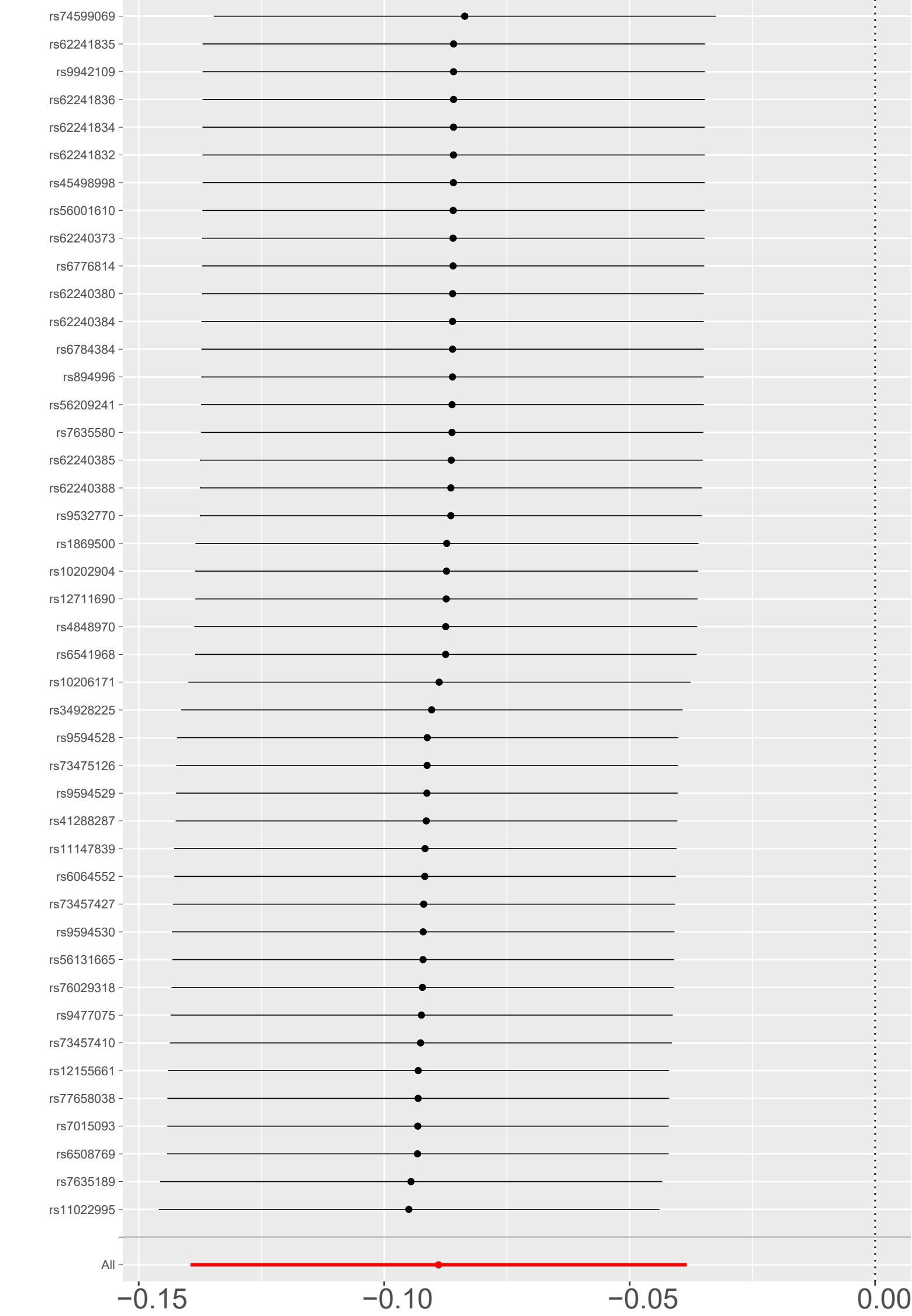
MR leave-one-out sensitivity analysis for class.*Gammaproteobacteria* on EC

A



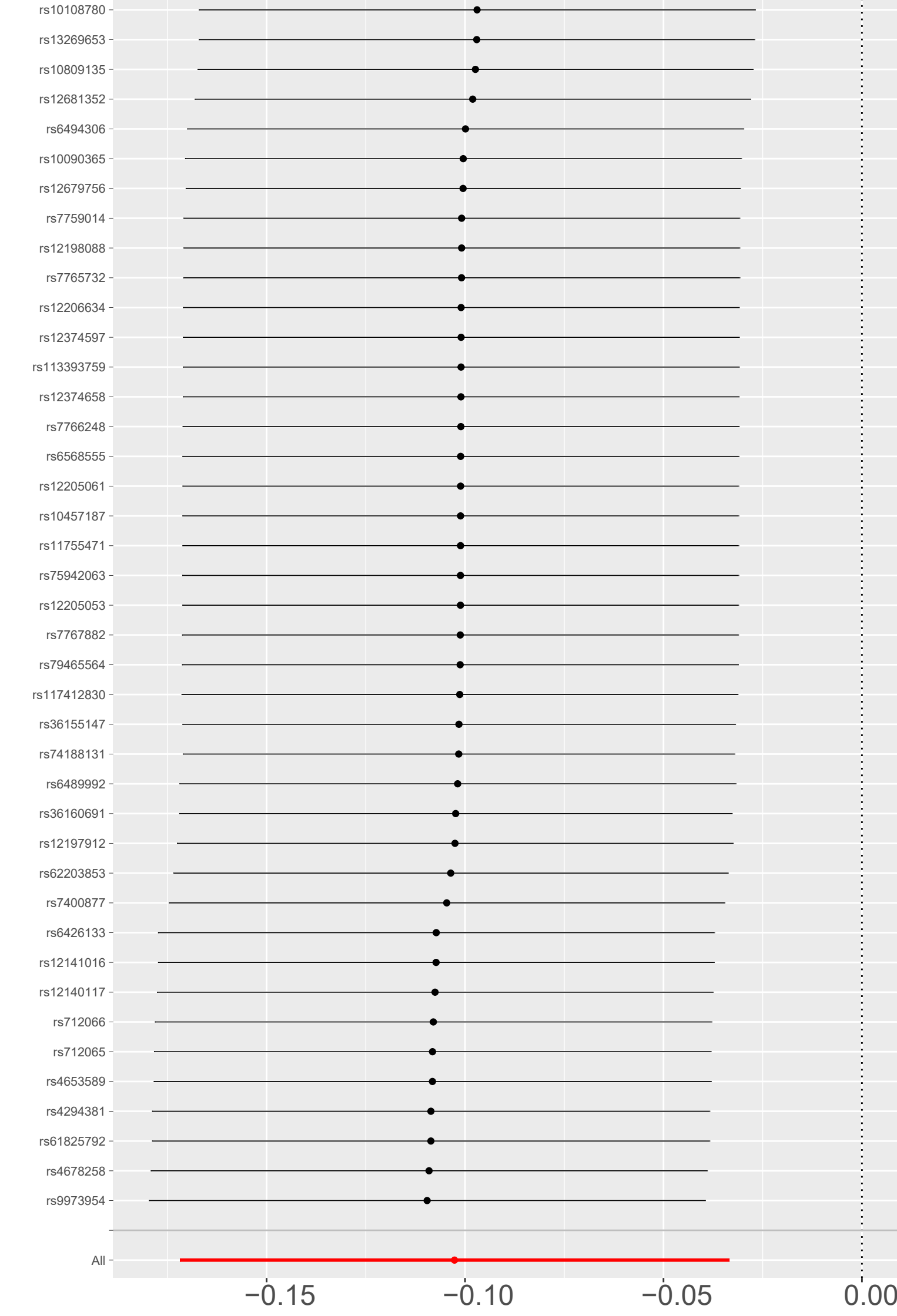
MR leave-one-out sensitivity analysis for genus *Ruminococcusgnavusgroup* on ECEH

B



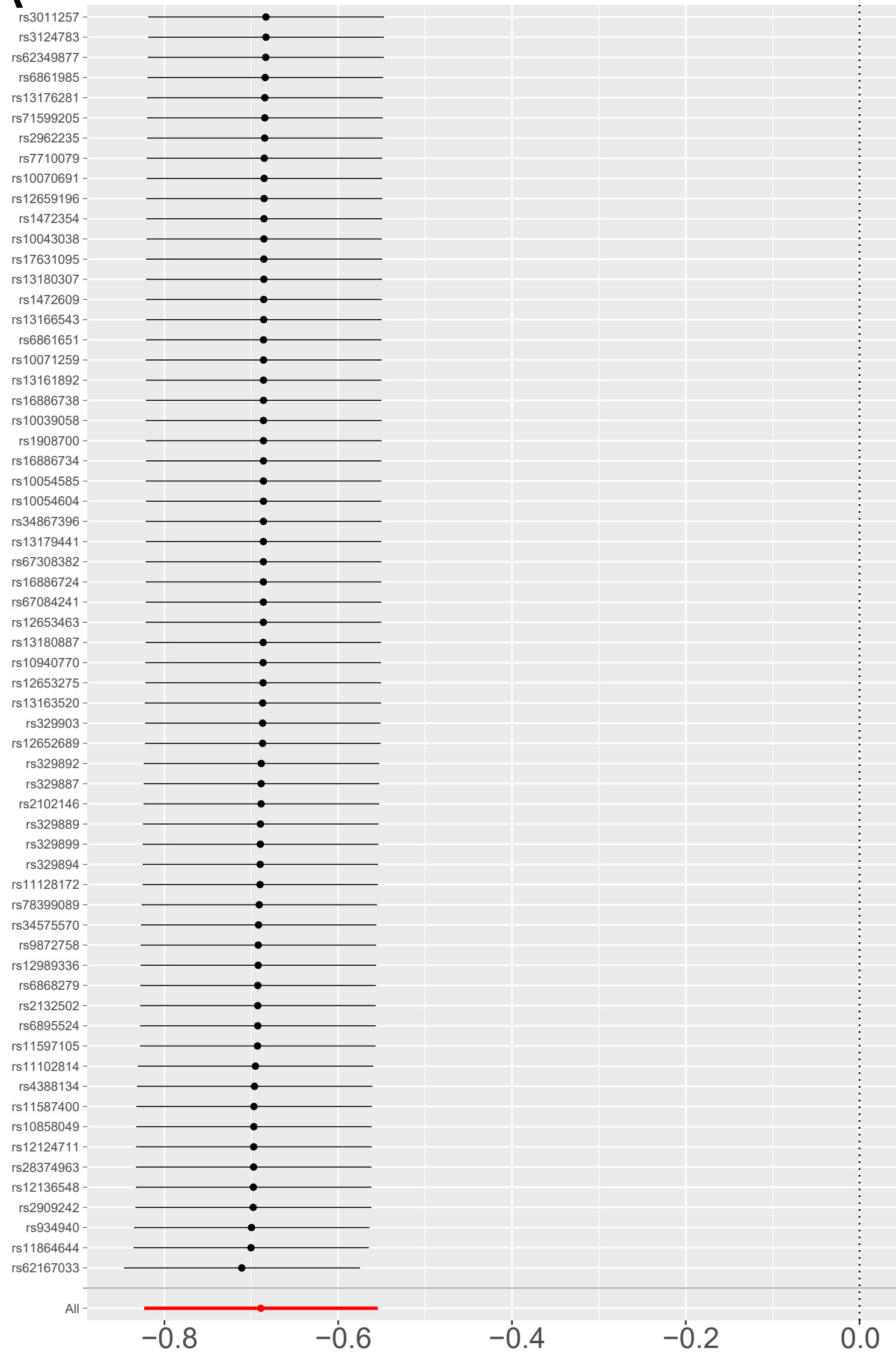
MR leave-one-out sensitivity analysis for phylum *Euryarchaeota* on ECEH

C



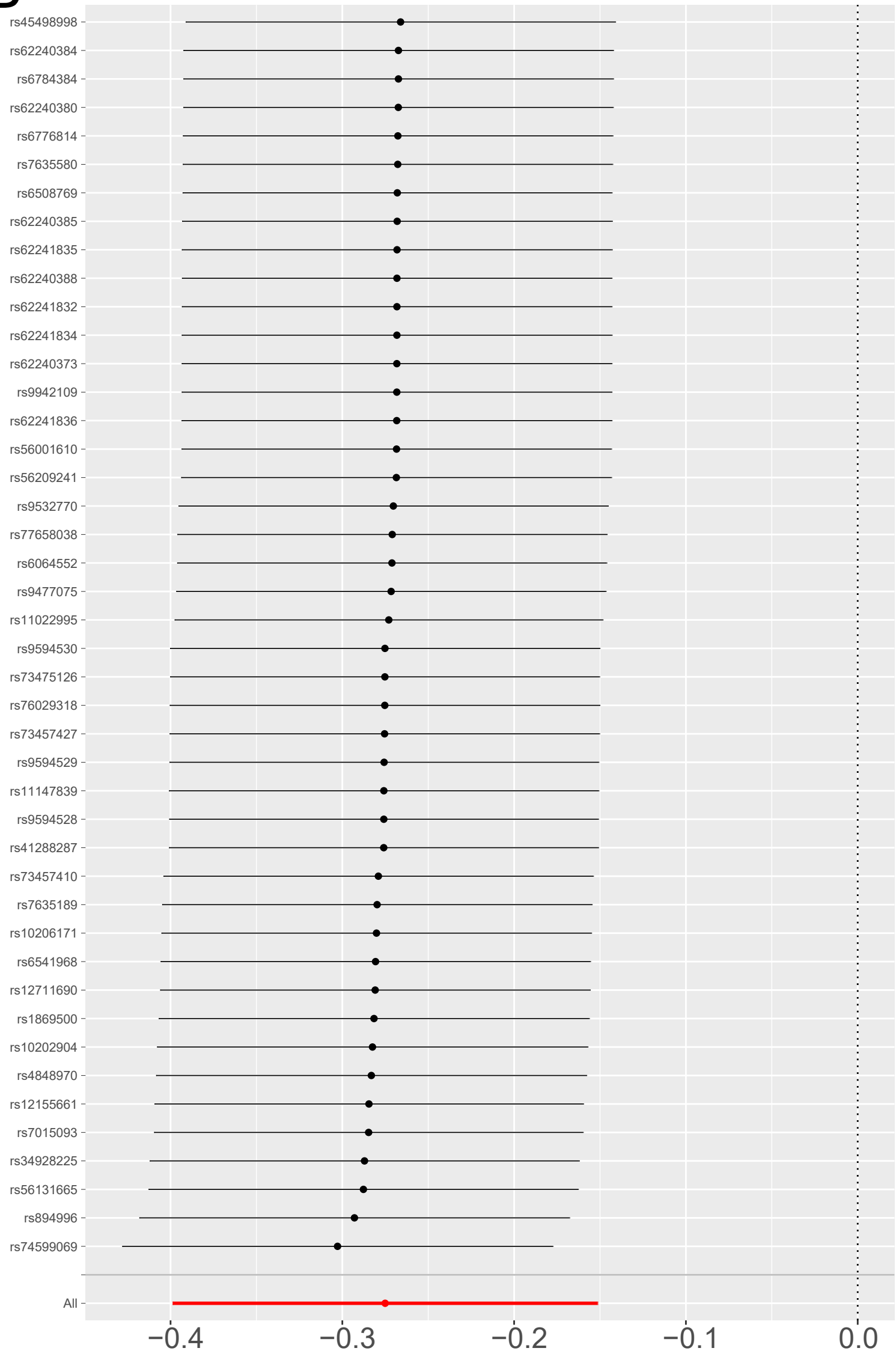
MR leave-one-out sensitivity analysis for genus *CandidatusSoleaferrea* on ECEH

A



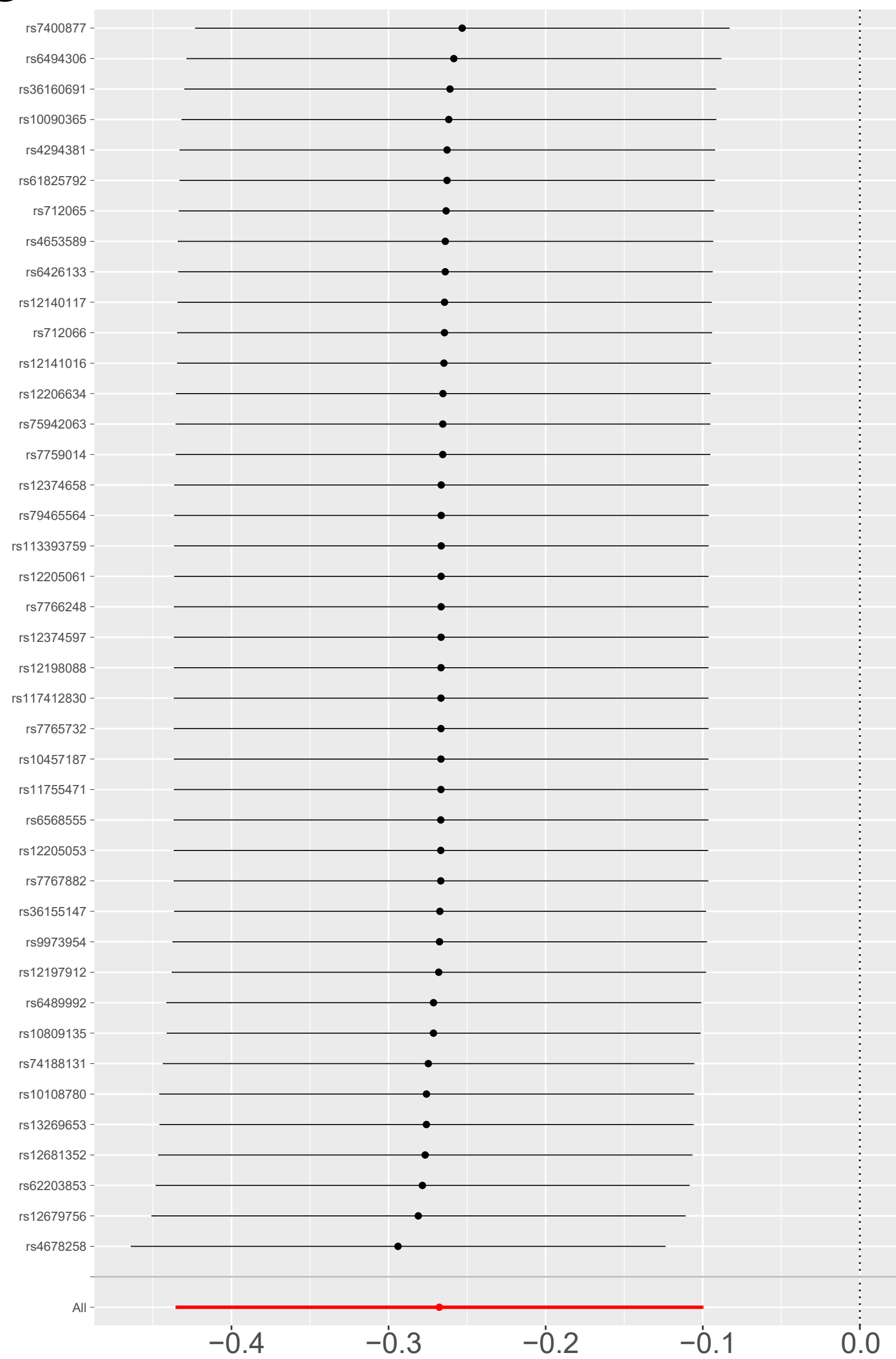
MR leave-one-out sensitivity analysis for genus *Ruminococcusgnavusgroup* on ECNEH

B



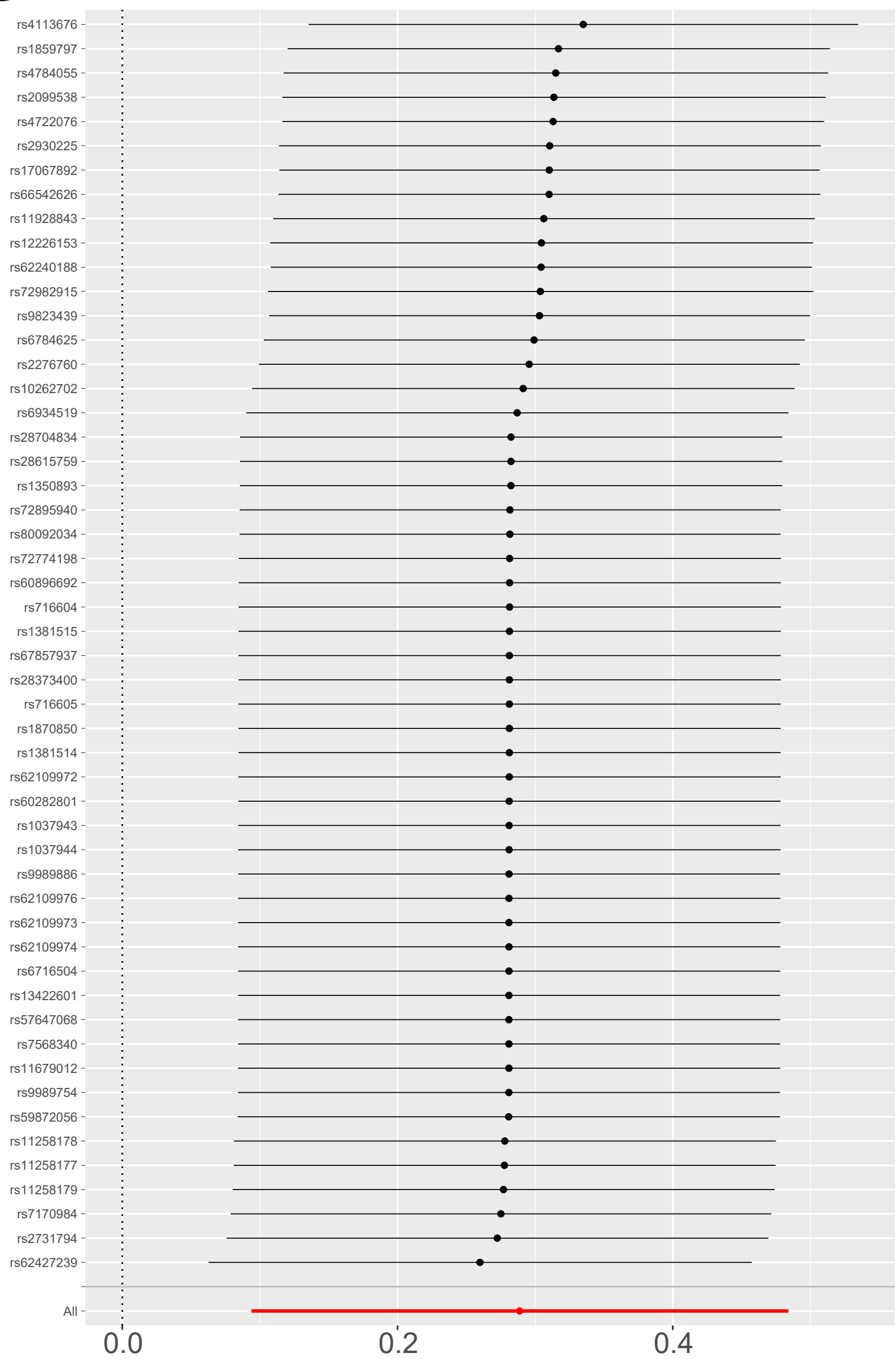
MR leave-one-out sensitivity analysis for phylum *Euryarchaeota* on ECNEH

C



MR leave-one-out sensitivity analysis for genus *CandidatusSoleaferrea* on ECNEH

D



MR leave-one-out sensitivity analysis for genus *Intestinimonas* on ECNEH

Supplementary Figure 1 Diagnostic power of SNPs of exposure factors on EC. (A) MR effect of SNPs of *Ruminococcusgnavusgroup* on EC. (B) MR effect of SNPs of *Euryarchaeota* on EC. (C) MR effect of SNPs of *CandidatusSoleaferrea* on EC. (D) MR effect of SNPs of *Gammaproteobacteria* on EC. MR, Mendelian randomization; EC, endometrial cancer; SNP, single nucleotide polymorphism.

Supplementary Figure 2 Diagnostic power of SNPs of exposure factors on ECEH. (A) MR effect of SNPs of *Ruminococcusgnavusgroup* on ECEH. (B) MR effect of SNPs of *Euryarchaeota* on ECEH. (C) MR effect of SNPs of *CandidatusSoleaferrea* on ECEH. MR, Mendelian randomization; ECEH, endometrial cancer with endometrioid histology; SNP, single nucleotide polymorphism.

Supplementary Figure 3 Diagnostic power of SNPs of exposure factors on ECNEH. (A) MR effect of SNPs of *Ruminococcusgnavusgroup* on ECNEH. (B) MR effect of SNPs of *Euryarchaeota* on ECNEH. (C) MR effect of SNPs of *CandidatusSoleaferrea* on ECNEH. (D) MR effect of SNPs of *Intestinimonas* on ECNEH. MR, Mendelian randomization; ECNEH, endometrial cancer with non-endometrioid histology; SNP, single nucleotide polymorphism.

Supplementary Figure 4 Leave-one-out analysis of the causal impact of gut microbiota on EC. (A) Leave-one-out analysis of the causal impact of *Ruminococcusgnavusgroup* on EC. (B) Leave-one-out analysis of the causal impact of *Euryarchaeota* on EC. (C) Leave-one-out analysis of the causal impact of *CandidatusSoleaferrea* on EC. (D) Leave-one-out analysis of the causal impact of *Gammaproteobacteria* on EC. MR, Mendelian randomization; EC, endometrial cancer.

Supplementary Figure 5 Leave-one-out analysis of the causal impact of gut microbiota on ECEH. (A) Leave-one-out analysis of the causal impact of *Ruminococcusgnavusgroup* on ECEH. (B) Leave-one-out analysis of the causal impact of *Euryarchaeota* on ECEH. (C) Leave-one-out analysis of the causal impact of *CandidatusSoleaferrea* on ECEH. MR, Mendelian randomization; ECEH, endometrial cancer with endometrioid histology.

Supplementary Figure 6 Leave-one-out analysis of the causal impact of gut microbiota on ECNEH. (A) Leave-one-out analysis of the causal impact of *Ruminococcusgnavusgroup* on ECNEH. (B) Leave-one-out analysis of the causal impact of *Euryarchaeota* on ECNEH. (C) Leave-one-out analysis of the causal impact of *CandidatusSoleaferrea* on ECNEH. (D) Leave-one-out analysis of the causal impact of *Intestinimonas* on ECNEH. MR, Mendelian randomization; ECNEH, endometrial cancer with non-endometrioid histology.