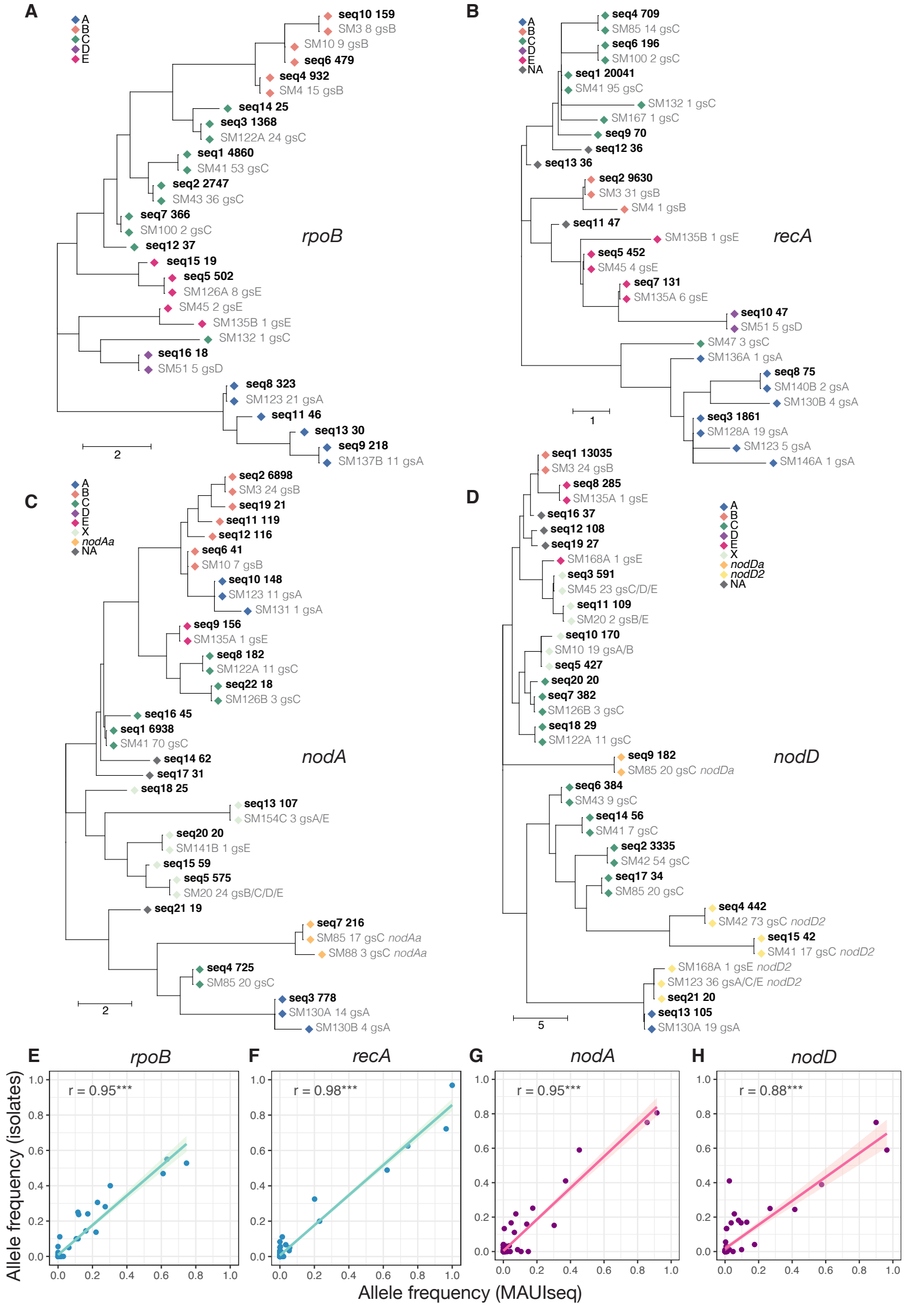
A
A
B
C
D
E
seq10 159
SM3 8 gsB
SM10 9 gsB
seq6 479
seq4 932
SM4 15 gsB
seq14 25
seq3 1368
SM122A 24 gsC
seq1 4860
SM41 53 gsC
seq2 2747
SM43 36 gsC
seq7 366
SM100 2 gsC
seq12 37
seq15 19
seq5 502
SM126A 8 gsE
SM45 2 gsE
SM135B 1 gsE
SM132 1 gsC
seq16 18
SM51 5 gsD
seq8 323
SM123 21 gsA
seq11 46
seq13 30
seq9 218
SM137B 11 gsA
2
rpoB
B
A
B
C
D
E
NA
seq4 709
SM85 14 gsC
seq6 196
SM100 2 gsC
seq1 20041
SM41 95 gsC
SM132 1 gsC
SM167 1 gsC
seq9 70
seq12 36
seq13 36
seq2 9630
SM3 31 gsB
SM4 1 gsB
seq11 47
SM135B 1 gsE
seq5 452
SM45 4 gsE
seq7 131
SM135A 6 gsE
seq10 47
SM51 5 gsD
SM47 3 gsC
SM136A 1 gsA
seq8 75
SM140B 2 gsA
SM130B 4 gsA
1
seq3 1861
SM128A 19 gsA
SM123 5 gsA
SM146A 1 gsA
recA
C
A
B
C
D
E
X
nodAa
NA
seq2 6898
SM3 24 gsB
seq19 21
seq11 119
seq12 116
seq6 41
SM10 7 gsB
seq10 148
SM123 11 gsA
SM131 1 gsA
seq9 156
SM135A 1 gsE
seq8 182
SM122A 11 gsC
seq22 18
SM126B 3 gsC
seq16 45
seq1 6938
SM41 70 gsC
seq14 62
seq17 31
seq18 25
seq13 107
SM154C 3 gsA/E
seq20 20
SM141B 1 gsE
seq15 59
seq5 575
SM20 24 gsB/C/D/E
seq21 19
seq7 216
SM85 17 gsC nodAa
SM88 3 gsC nodAa
seq4 725
SM85 20 gsC
seq3 778
SM130A 14 gsA
SM130B 4 gsA
2
nodA
D
seq1 13035
SM3 24 gsB
seq8 285
SM135A 1 gsE
seq16 37
seq12 108
seq19 27
SM168A 1 gsE
seq3 591
SM45 23 gsC/D/E
seq11 109
SM20 2 gsB/E
seq10 170
SM10 19 gsA/B
seq5 427
seq20 20
seq7 382
SM126B 3 gsC
seq18 29
SM122A 11 gsC
A
B
C
D
E
X
nodDa
nodD2
NA
seq9 182
SM85 20 gsC nodDa
seq6 384
SM43 9 gsC
seq14 56
SM41 7 gsC
seq2 3335
SM42 54 gsC
seq17 34
SM85 20 gsC
seq4 442
SM42 73 gsC nodD2
seq15 42
SM41 17 gsC nodD2
SM168A 1 gsE nodD2
SM123 36 gsA/C/E nodD2
seq21 20
seq13 105
SM130A 19 gsA
5
nodD
E
rpoB
r = 0.95***
F
recA
r = 0.98***
G
nodA
r = 0.95***
H
nodD
r = 0.88***
Allele frequency (isolates)
Allele frequency (MAUIseq)
0.0
0.2
0.4
0.6
0.8
1.0