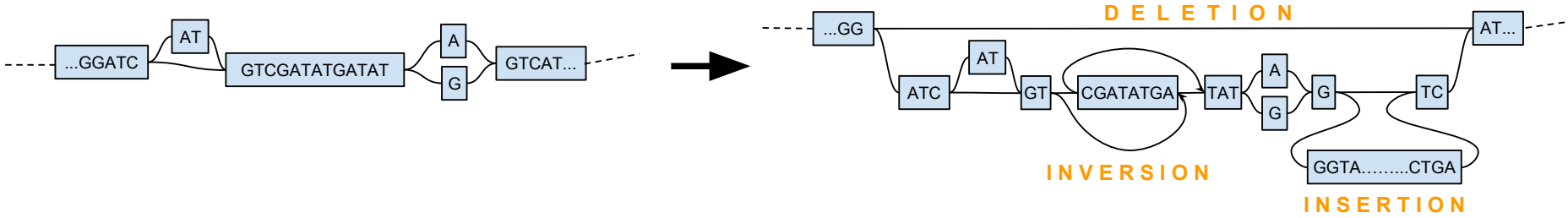
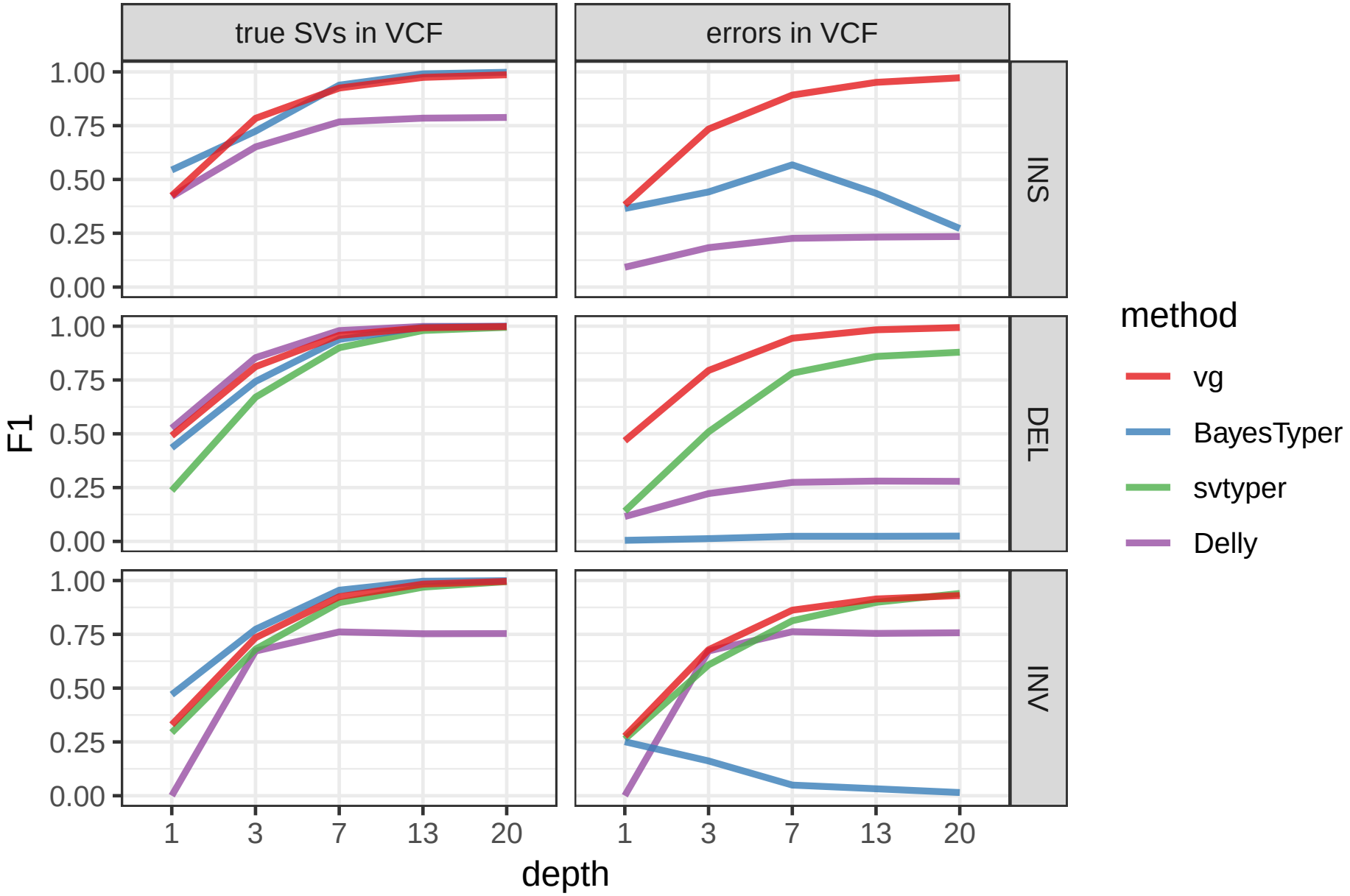
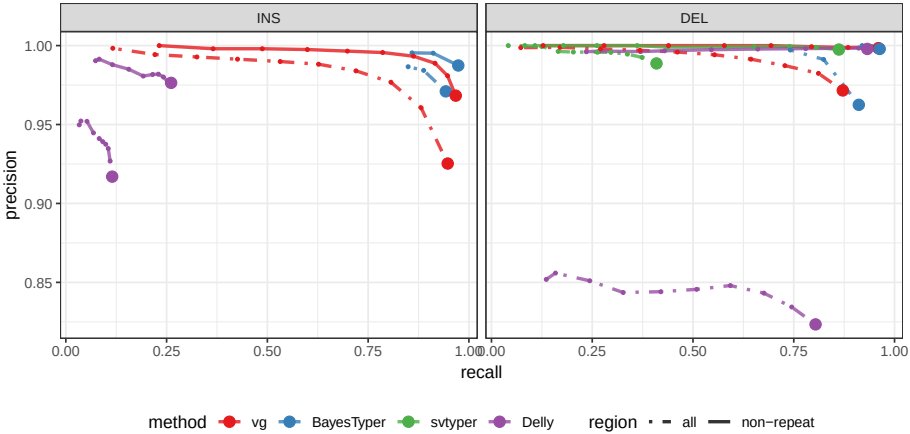
(a)


...GGATC
AT
GTCGATATGATAT
A
G
GTCAT...
...GG
DELETION
AT...
ATC
AT
GT
CGATATGA
TAT
A
G
G
TC
INVERSION
GGTA.....CTGA
INSERTION

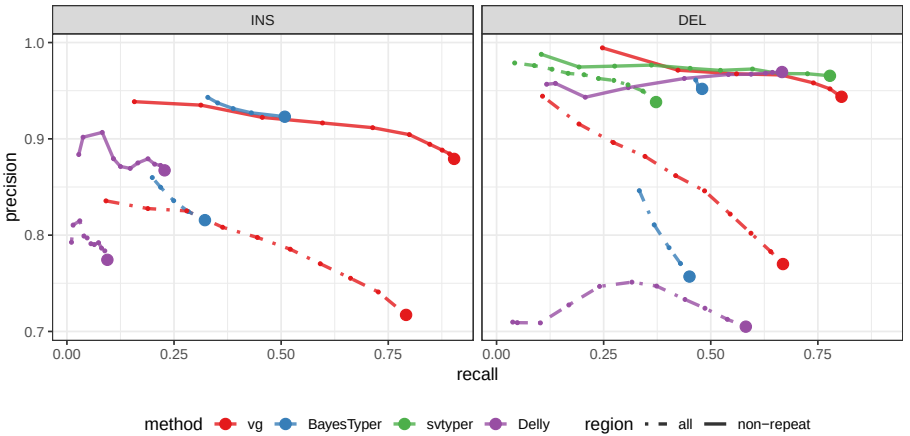
(b)


true SVs in VCF
errors in VCF
INS
DEL
INV
F1
1.00
0.75
0.50
0.25
0.00
1
3
7
13
20
depth
method
vg
BayesTyper
svtyper
Delly

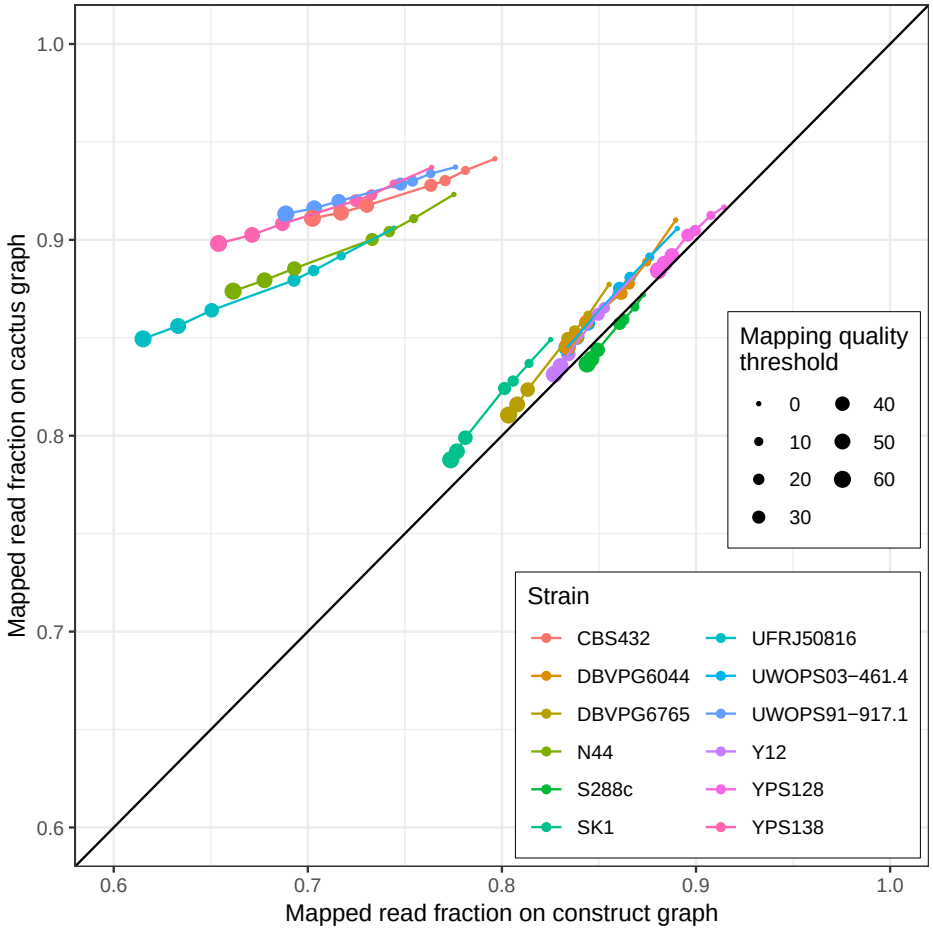
(a)


INS
DEL
precision
recall
1.00
0.95
0.90
0.85
0.00
0.25
0.50
0.75
1.00
method
vg
BayesTyper
svtyper
Delly
region
all
non−repeat

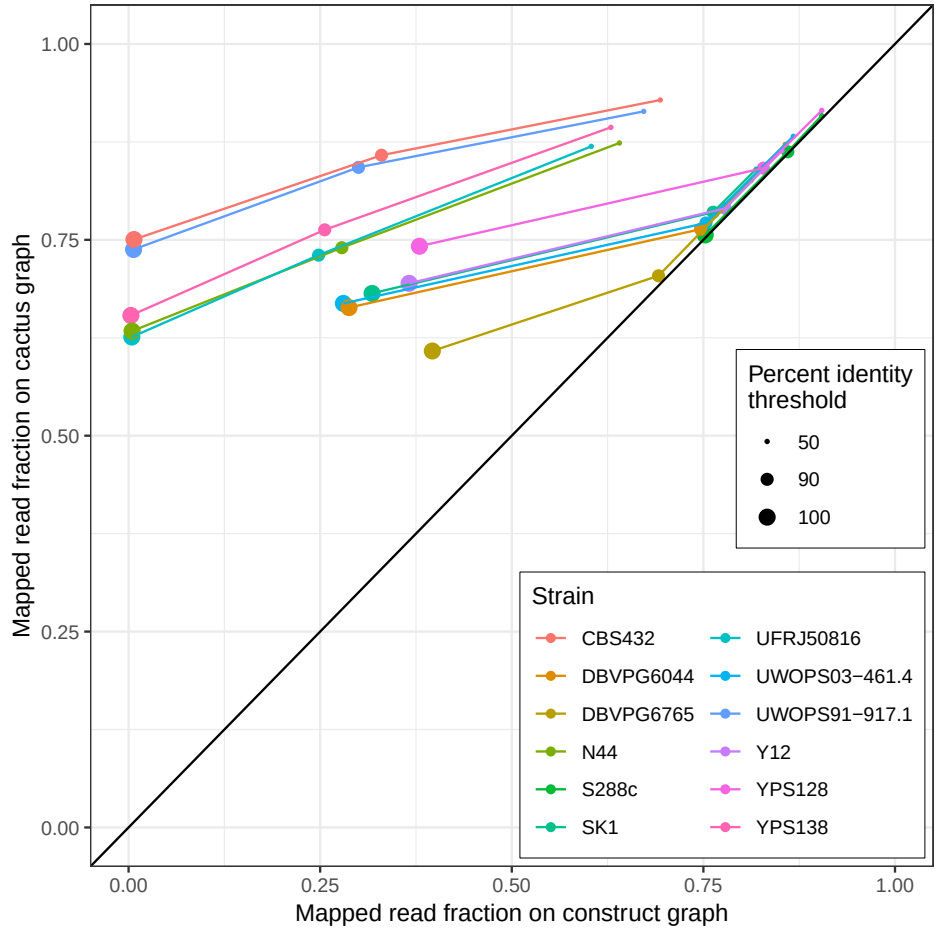
(b)


INS
DEL
precision
recall
1.0
0.9
0.8
0.7
0.00
0.25
0.50
0.75
method
vg
BayesTyper
svtyper
Delly
region
all
non−repeat

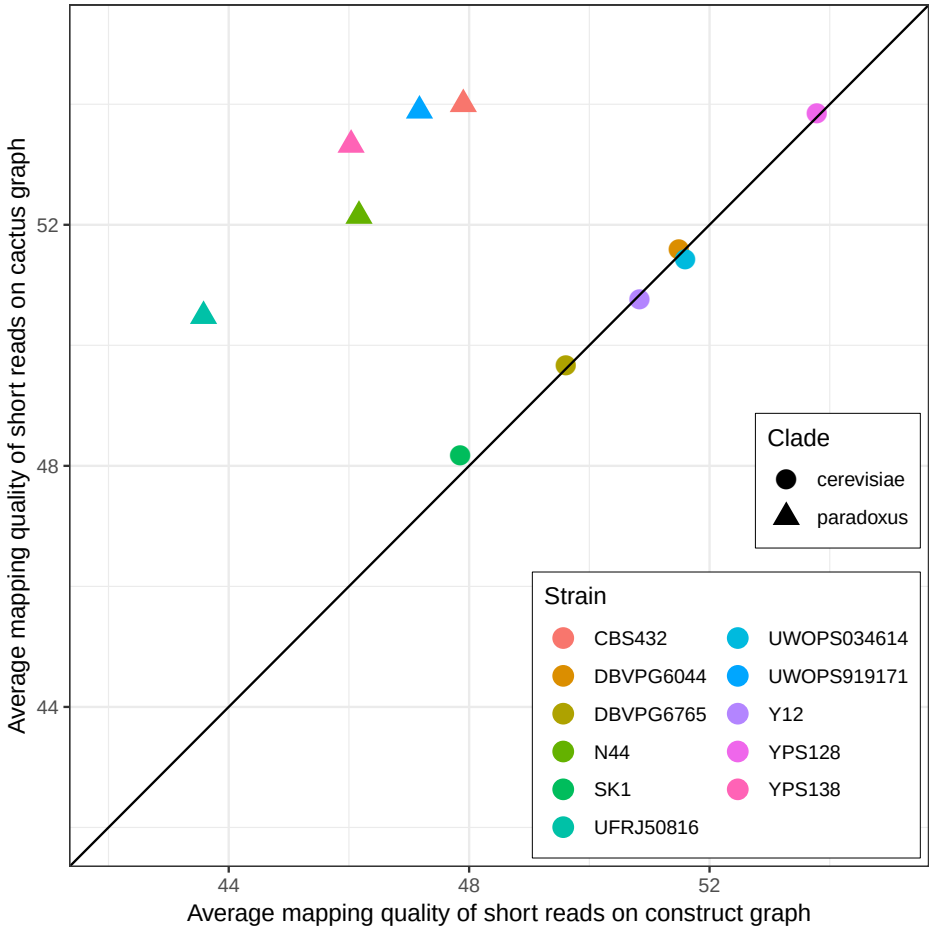
(a)


Mapped read fraction on cactus graph
Mapped read fraction on construct graph
1.0
0.9
0.8
0.7
0.6
0.6
0.7
0.8
0.9
1.0
Mapping quality threshold
0
10
20
30
40
50
60
Strain
CBS432
DBVPG6044
DBVPG6765
N44
S288c
SK1
UFRJ50816
UWOPS03−461.4
UWOPS91−917.1
Y12
YPS128
YPS138

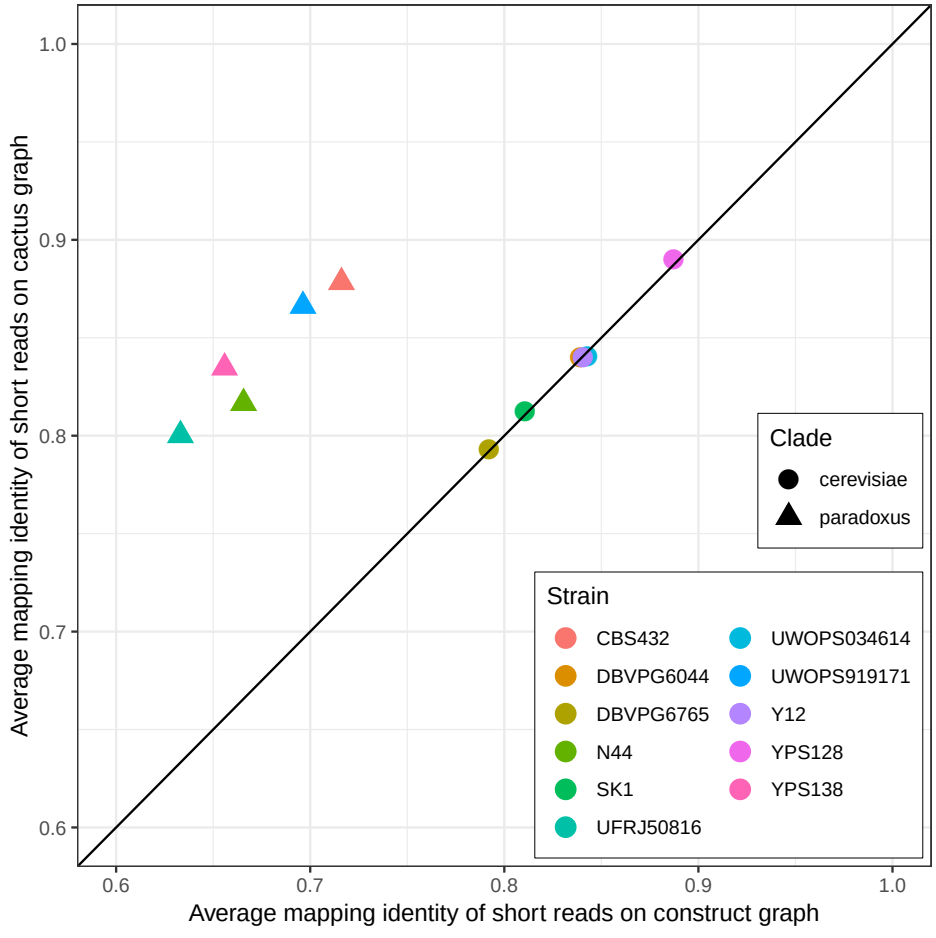
(b)


Mapped read fraction on cactus graph
Mapped read fraction on construct graph
1.00
0.75
0.50
0.25
0.00
0.00
0.25
0.50
0.75
1.00
Percent identity threshold
50
90
100
Strain
CBS432
DBVPG6044
DBVPG6765
N44
S288c
SK1
UFRJ50816
UWOPS03−461.4
UWOPS91−917.1
Y12
YPS128
YPS138

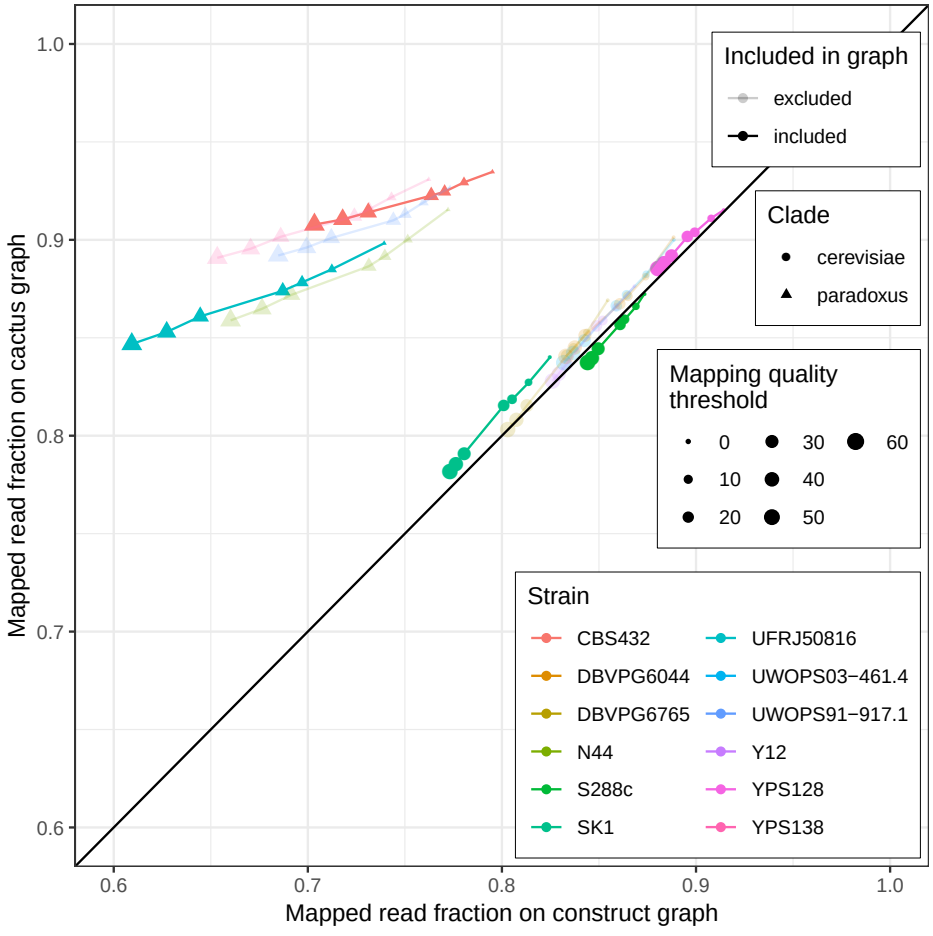
(a)


Average mapping quality of short reads on cactus graph
52
48
44
44
48
52
Average mapping quality of short reads on construct graph
Clade
cerevisiae
paradoxus
Strain
CBS432
DBVPG6044
DBVPG6765
N44
SK1
UFRJ50816
UWOPS034614
UWOPS919171
Y12
YPS128
YPS138

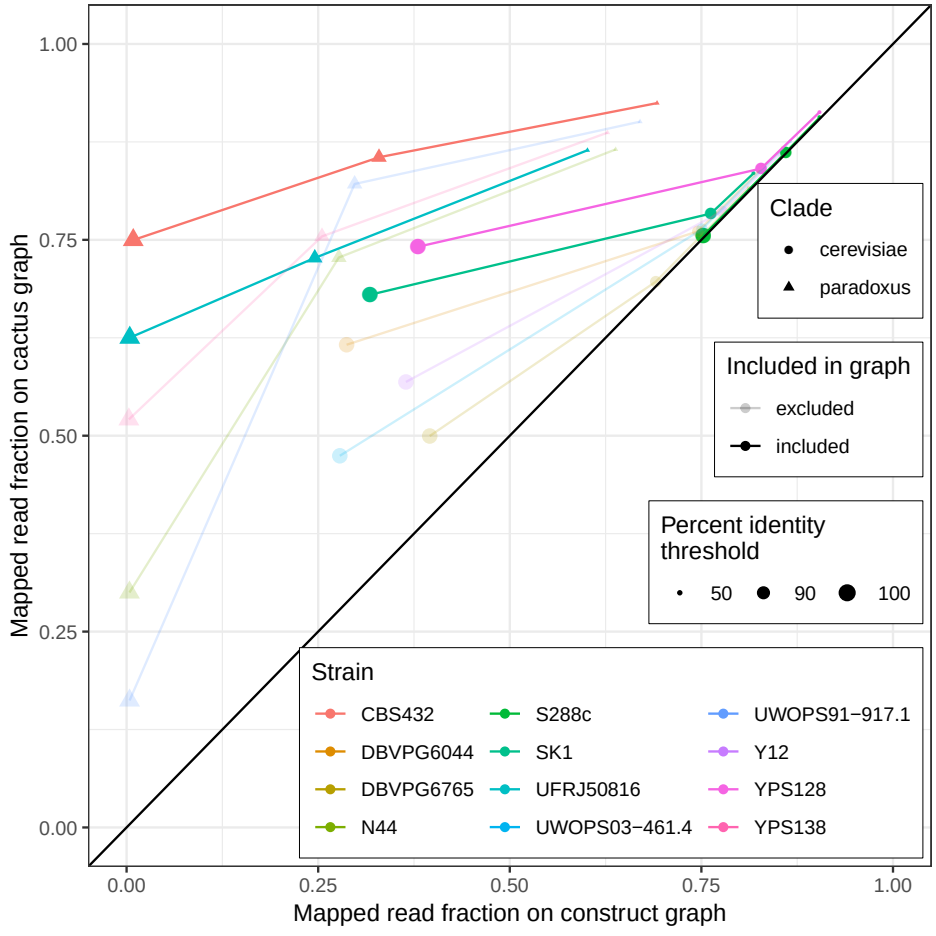
(b)


Average mapping identity of short reads on cactus graph
1.0
0.9
0.8
0.7
0.6
0.6
0.7
0.8
0.9
1.0
Average mapping identity of short reads on construct graph
Clade
cerevisiae
paradoxus
Strain
CBS432
DBVPG6044
DBVPG6765
N44
SK1
UFRJ50816
UWOPS034614
UWOPS919171
Y12
YPS128
YPS138

(a)


Mapped read fraction on cactus graph
Mapped read fraction on construct graph
1.0
0.9
0.8
0.7
0.6
0.6
0.7
0.8
0.9
1.0
Included in graph
excluded
included
Clade
cerevisiae
paradoxus
Mapping quality threshold
0
10
20
30
40
50
60
Strain
CBS432
DBVPG6044
DBVPG6765
N44
S288c
SK1
UFRJ50816
UWOPS03−461.4
UWOPS91−917.1
Y12
YPS128
YPS138

(b)


Mapped read fraction on cactus graph
Mapped read fraction on construct graph
1.00
0.75
0.50
0.25
0.00
0.00
0.25
0.50
0.75
1.00
Clade
cerevisiae
paradoxus
Included in graph
excluded
included
Percent identity threshold
50
90
100
Strain
CBS432
DBVPG6044
DBVPG6765
N44
S288c
SK1
UFRJ50816
UWOPS03−461.4
UWOPS91−917.1
Y12
YPS128
YPS138