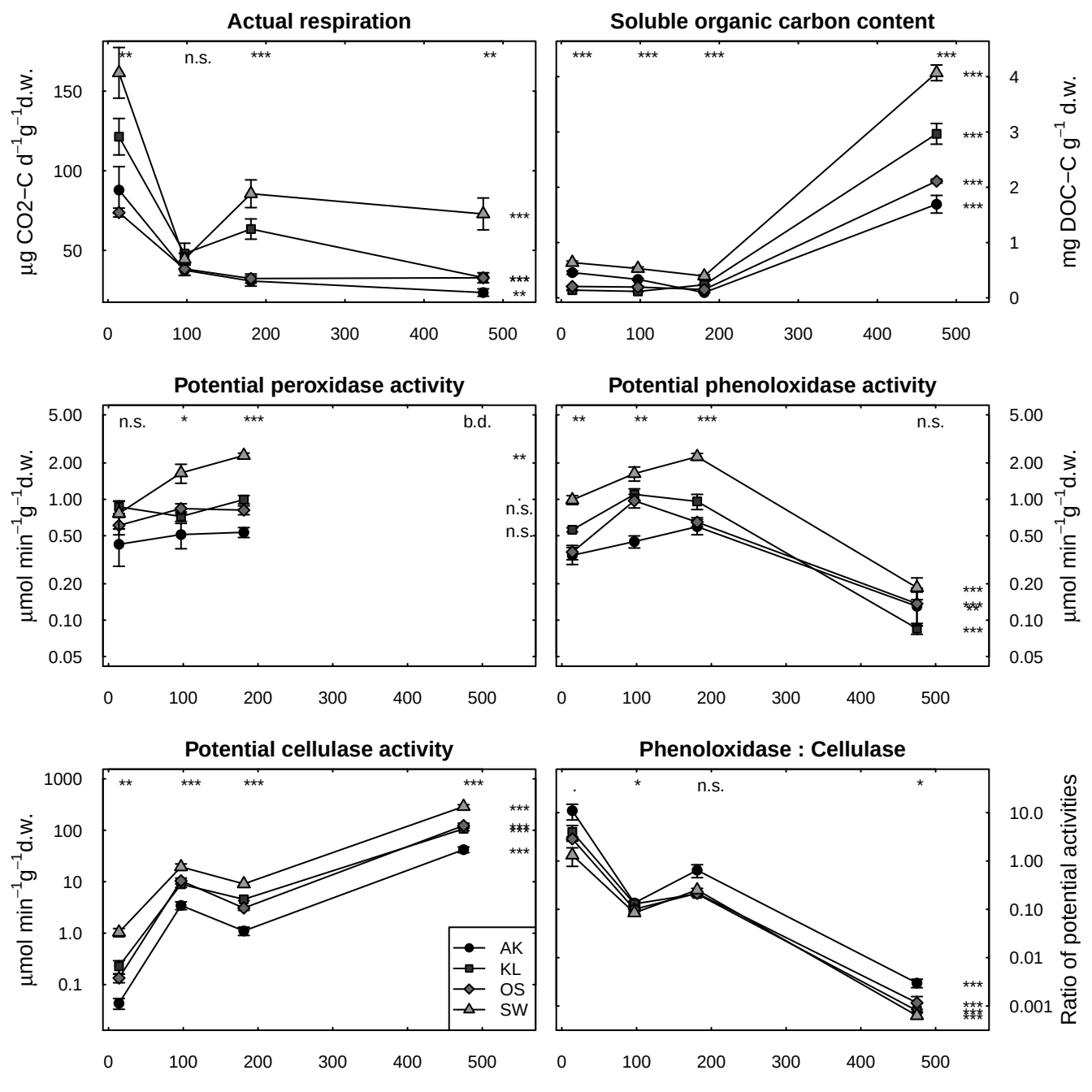
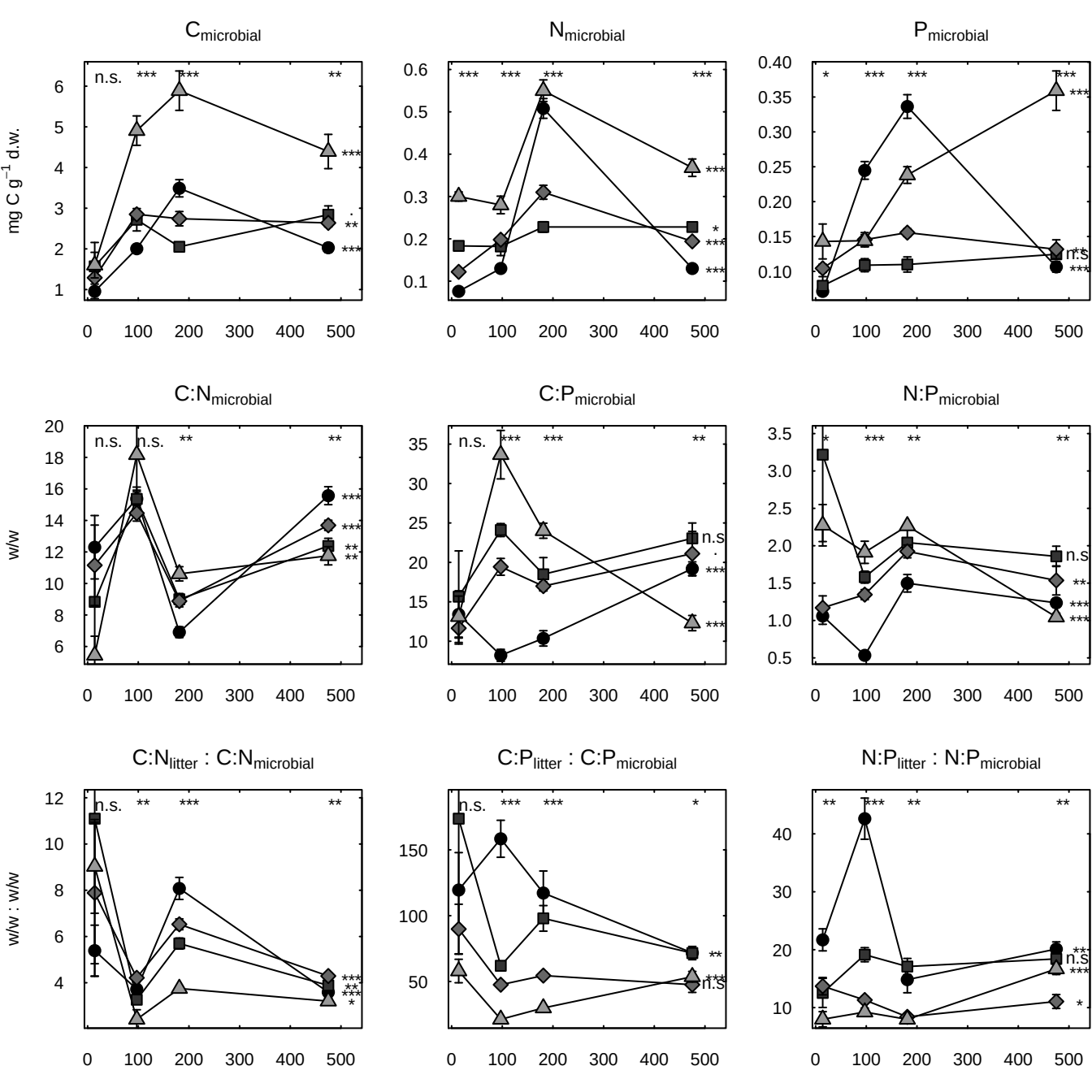
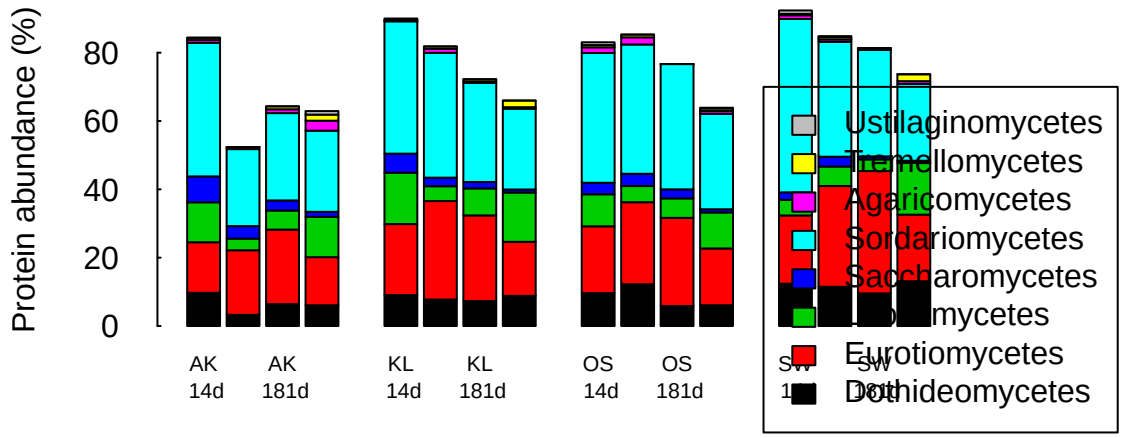
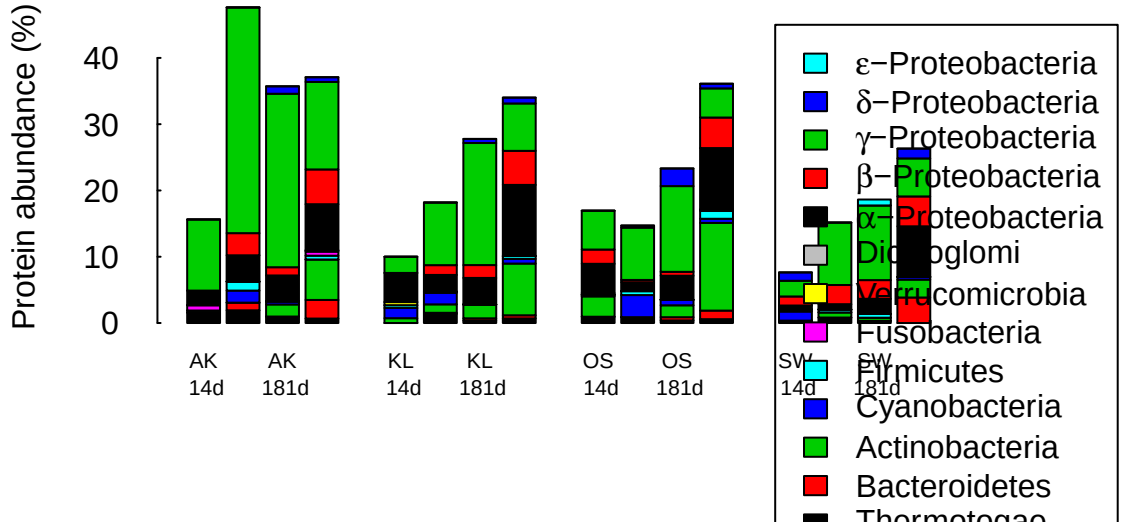

Actual respiration
Soluble organic carbon content
Potential peroxidase activity
Potential phenoloxidase activity
Potential cellulase activity
Phenoloxidase : Cellulase
µg CO2−C d−1g−1d.w.
mg DOC−C g−1 d.w.
µmol min−1g−1d.w.
Ratio of potential activities
AK
KL
OS
SW
n.s.
b.d.

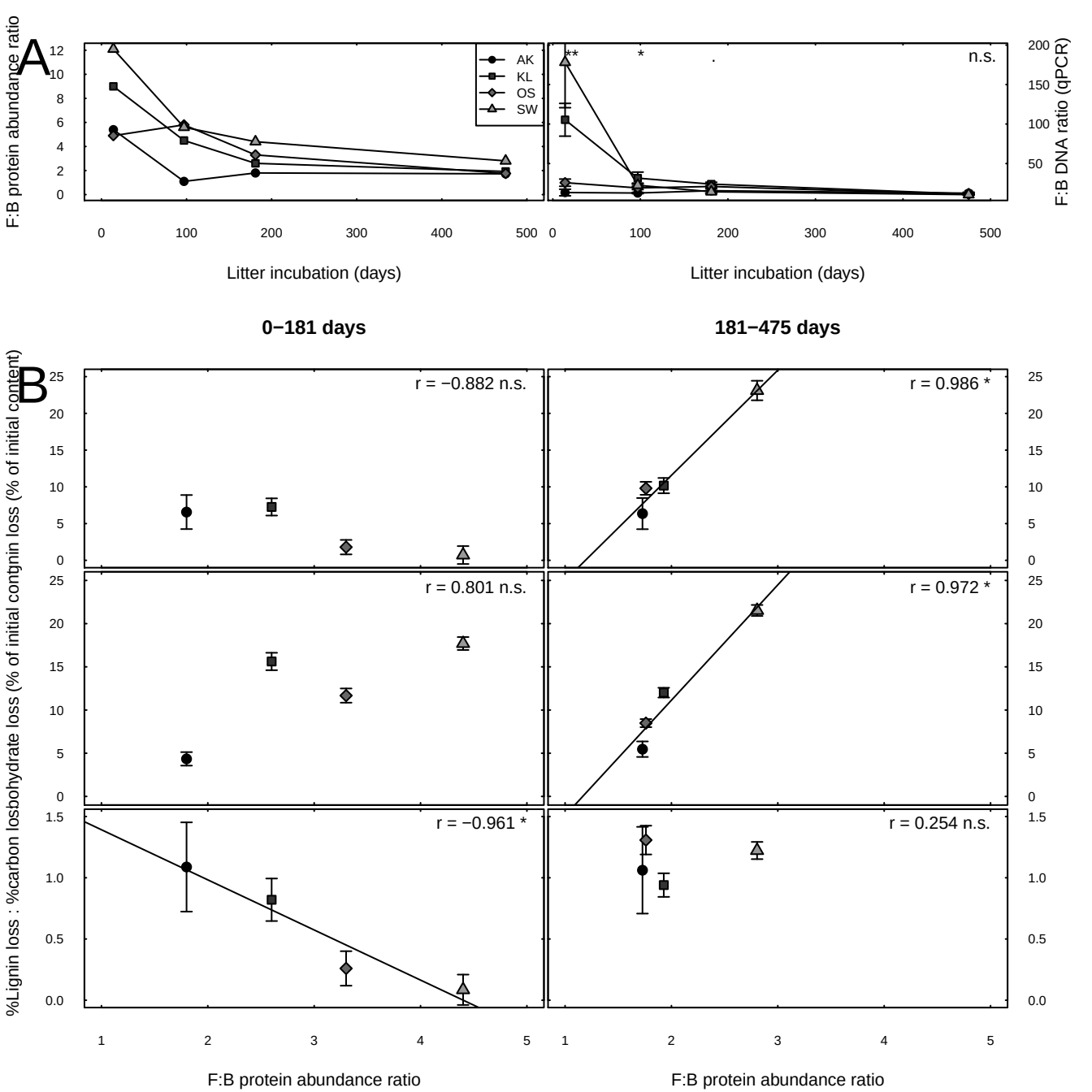

C_microbial
N_microbial
P_microbial
C:N_microbial
C:P_microbial
N:P_microbial
C:N_litter : C:N_microbial
C:P_litter : C:P_microbial
N:P_litter : N:P_microbial
mg C g−1 d.w.
w/w
w/w : w/w
n.s.
n.s
0
100
200
300
400
500

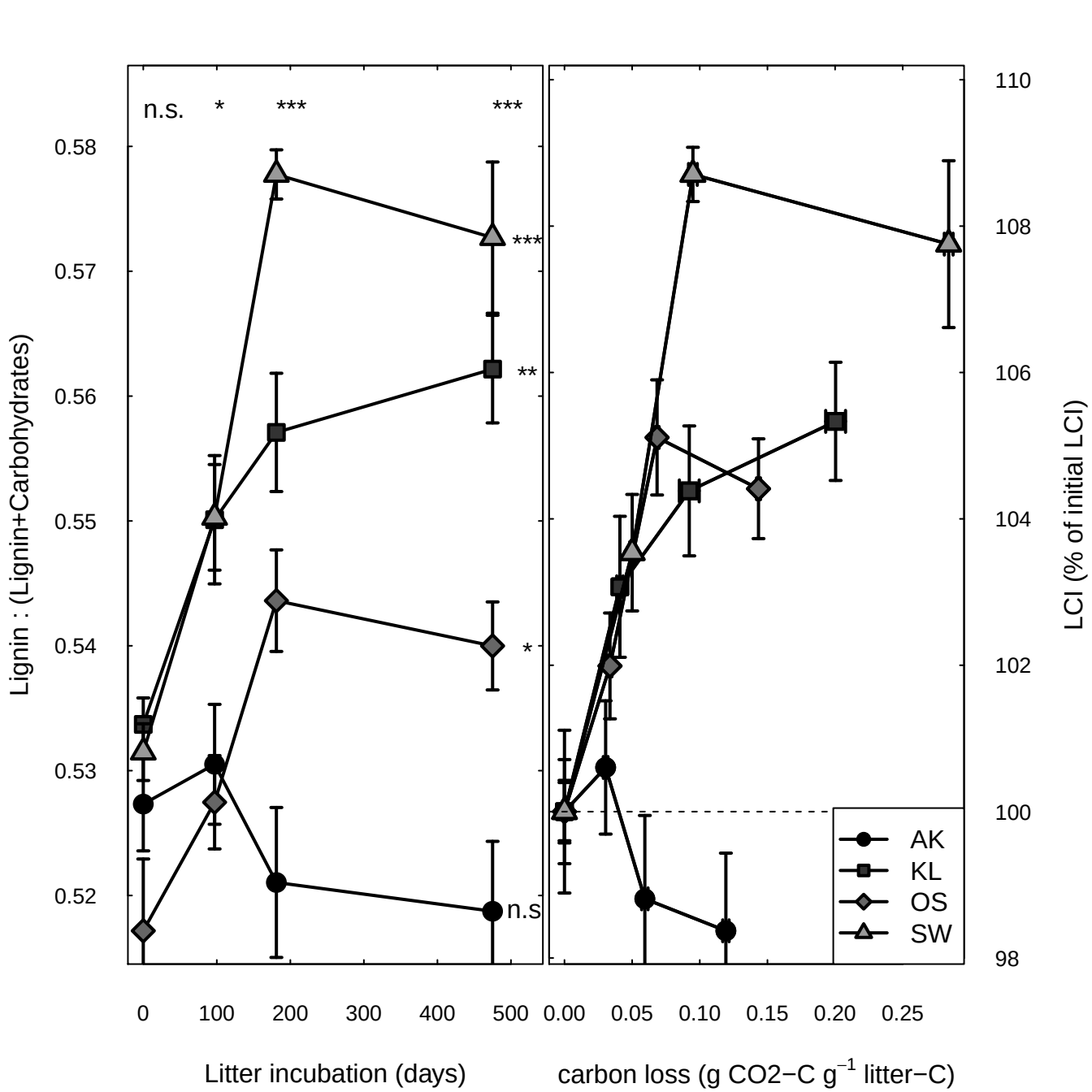
Fungal community

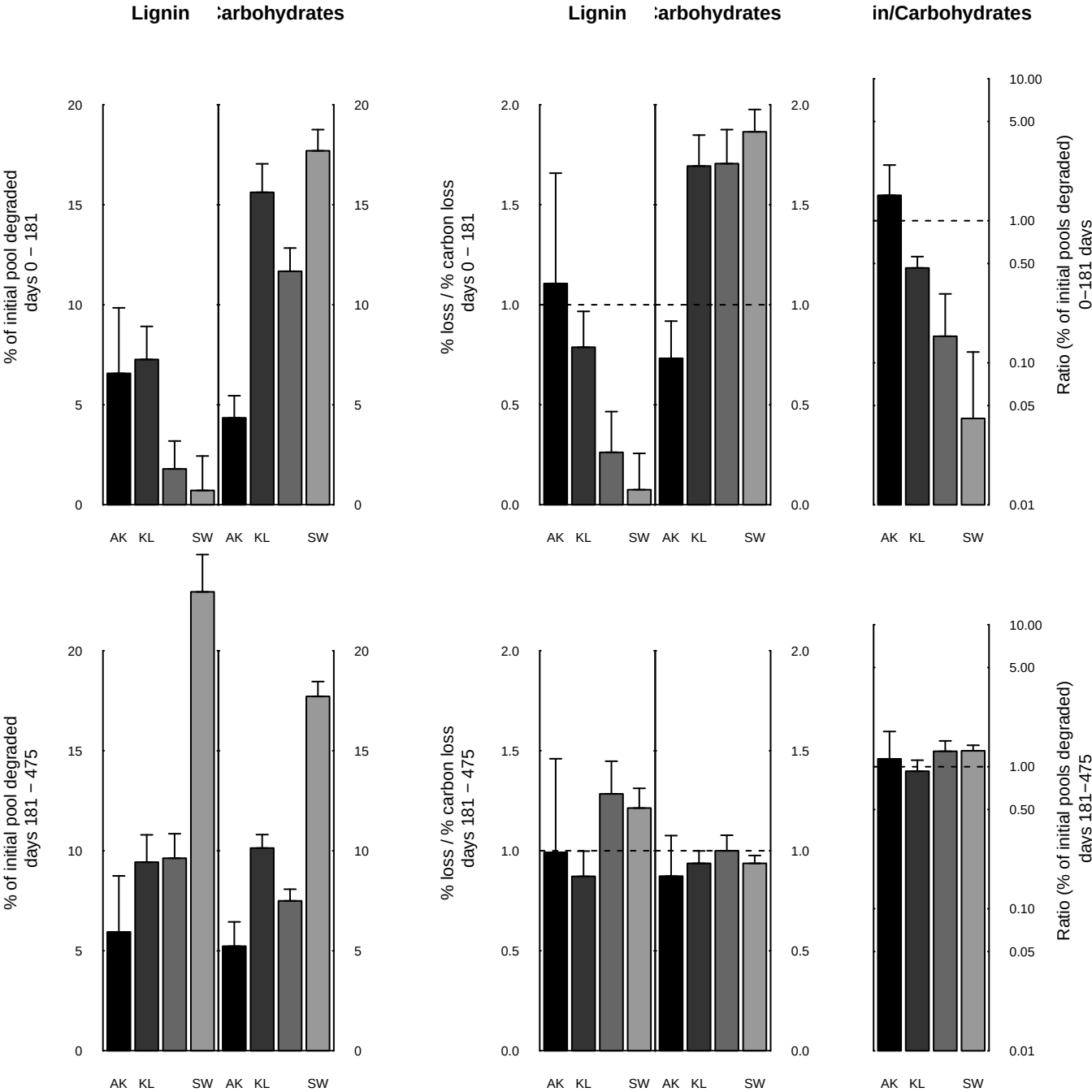


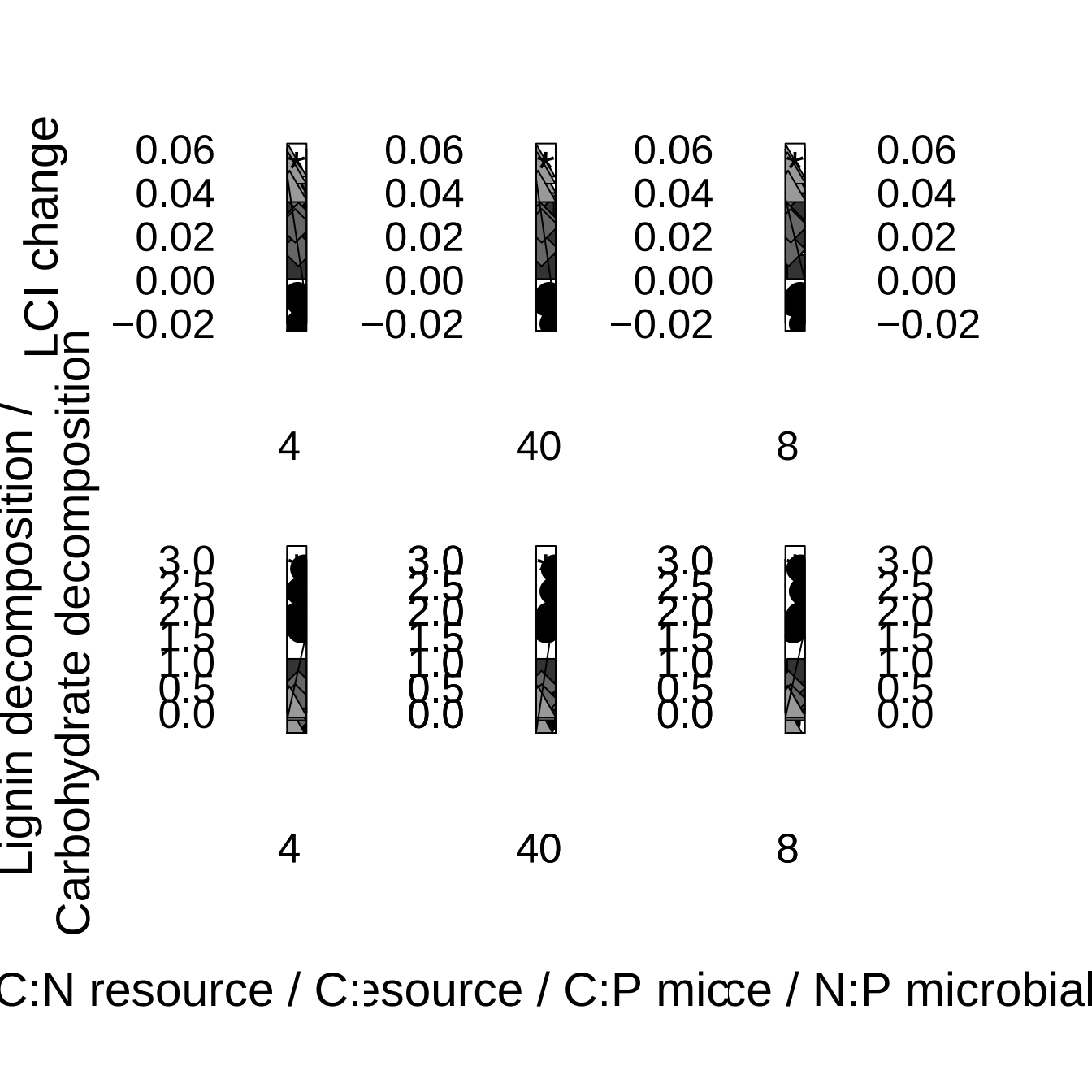
Bacterial community




A
F:B protein abundance ratio
F:B DNA ratio (qPCR)
AK
KL
OS
SW
**
*
.
n.s.
Litter incubation (days)
Litter incubation (days)
0−181 days
181−475 days
B
%Lignin loss : %carbon losbohydrate loss (% of initial contgnin loss (% of initial content)
r = −0.882 n.s.
r = 0.986 *
r = 0.801 n.s.
r = 0.972 *
r = −0.961 *
r = 0.254 n.s.
F:B protein abundance ratio
F:B protein abundance ratio


n.s.
*
***
***
***
**
*
n.s
0.58
0.57
0.56
0.55
0.54
0.53
0.52
Lignin : (Lignin+Carbohydrates)
110
108
106
104
102
100
98
LCI (% of initial LCI)
AK
KL
OS
SW
0
100
200
300
400
500
Litter incubation (days)
0.00
0.05
0.10
0.15
0.20
0.25
carbon loss (g CO2−C g−1 litter−C)


Lignin
Carbohydrates
Lignin
Carbohydrates
in/Carbohydrates
% of initial pool degraded
days 0 – 181
% loss / % carbon loss
days 0 – 181
Ratio (% of initial pools degraded)
0–181 days
% of initial pool degraded
days 181 – 475
% loss / % carbon loss
days 181 – 475
Ratio (% of initial pools degraded)
days 181–475
AK KL SW AK KL SW
AK KL SW
0 5 10 15 20
0.0 0.5 1.0 1.5 2.0
0.01 0.05 0.10 0.50 1.00 5.00 10.00


LCI change
0.06
0.04
0.02
0.00
−0.02
Lignin decomposition / Carbohydrate decomposition
3.0
2.5
2.0
1.5
1.0
0.5
0.0
4
40
8
C:N resource / C:P resource / C:P microbe / N:P microbial

−1.0

5.7 % variance