m/z26.016 C2H2+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for time and origin x time

concentration, ppbV

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z28.031 C2H4+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin and time

concentration, ppbV

0.3
0.2
0.1

0.08
0.06
0.04
0.02

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z33.034 CH4OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

60
50
40
30
20
15
10
5

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z34.029 H3NOH+

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.14
0.12
0.10
0.09
0.08
0.07
0.06

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z34.995 H2SH+

cooked p<0.001 for time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

150
120
90
60

0.10
0.05

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z39.022 C3H3+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

60
40
20
0
20
10

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z41.038 C3H5+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z42.01 C2H2O+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.6
0.4
0.2

0.6
0.5
0.4
0.3
0.2
0.1

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z42.021 CH2N2+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin and origin x time

concentration, ppbV

0.6
0.5
0.4
0.3

0.06
0.04
0.02

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z42.035 C2H3NH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

1.25
1.00
0.75
0.50

0.6
0.4
0.2

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z43.018 C2H3O+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for time and origin x time

concentration, ppbV

14
12
10
8

12.5
10.0
7.5

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z43.055 C3H7+

cooked p<0.001 for origin

raw p<0.001 for origin, time and origin x time

concentration, ppbV

5
4
3
2
1

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z44.025

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for time and origin x time

concentration, ppbV

1.6
1.2
0.8
0.4

0.5
0.4
0.3
0.2

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z44.052 C2[13]CH7+/C2H5NH+

cooked p<0.001 for origin

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.25

0.20

0.15

0.10

july

august

september

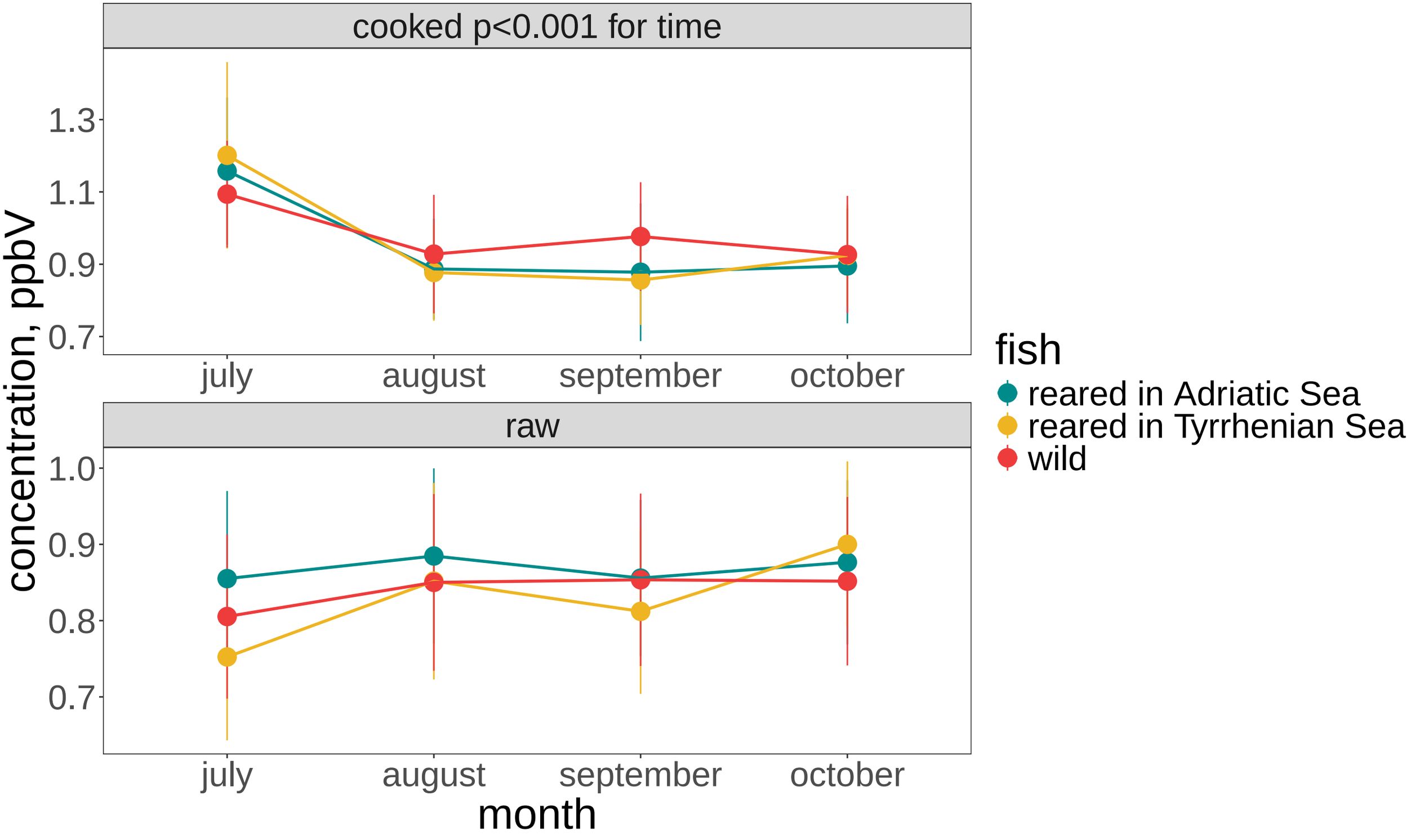
october

month

fish

- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z46.03 CH3NOH+



m/z46.038 C[13]CH4OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

15
10
5

4
3
2
1

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z46.975

cooked p<0.001 for origin and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.20
0.15
0.10
0.05

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z46.996 CH3S+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z47.05 C2H6OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

month

july

august

september

october

fish

- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z48.007

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

month

july

august

september

october

fish

- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z48.991

cooked p<0.001 for origin and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.4
0.3
0.2
0.1
0.0

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z49.011 CH4SH+

cooked p<0.001 for origin and time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

100
75
50
25
0

0.75
0.50
0.25

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z51.997

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.05
0.04
0.03
0.02

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z53.004

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.5
0.4
0.3
0.2
0.1

0.75
0.50
0.25

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z53.04 C4H5+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

2.0
1.5
1.0
0.5

0.6
0.4
0.2

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z55.854

cooked p<0.001 for origin and time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.30
0.25
0.20
0.15

0.200
0.175
0.150
0.125
0.100
0.075

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z56.061 C3[13]CH7+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.8
0.6
0.4
0.2
0.0

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z57.042 C3H4OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z57.07 C4H9+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

8
6
4
2

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z58.036 C2[13]CH4OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for time

concentration, ppbV

0.3
0.2
0.1

0.20
0.15
0.10
0.05

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z59.049 C3H6OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

300
200
100

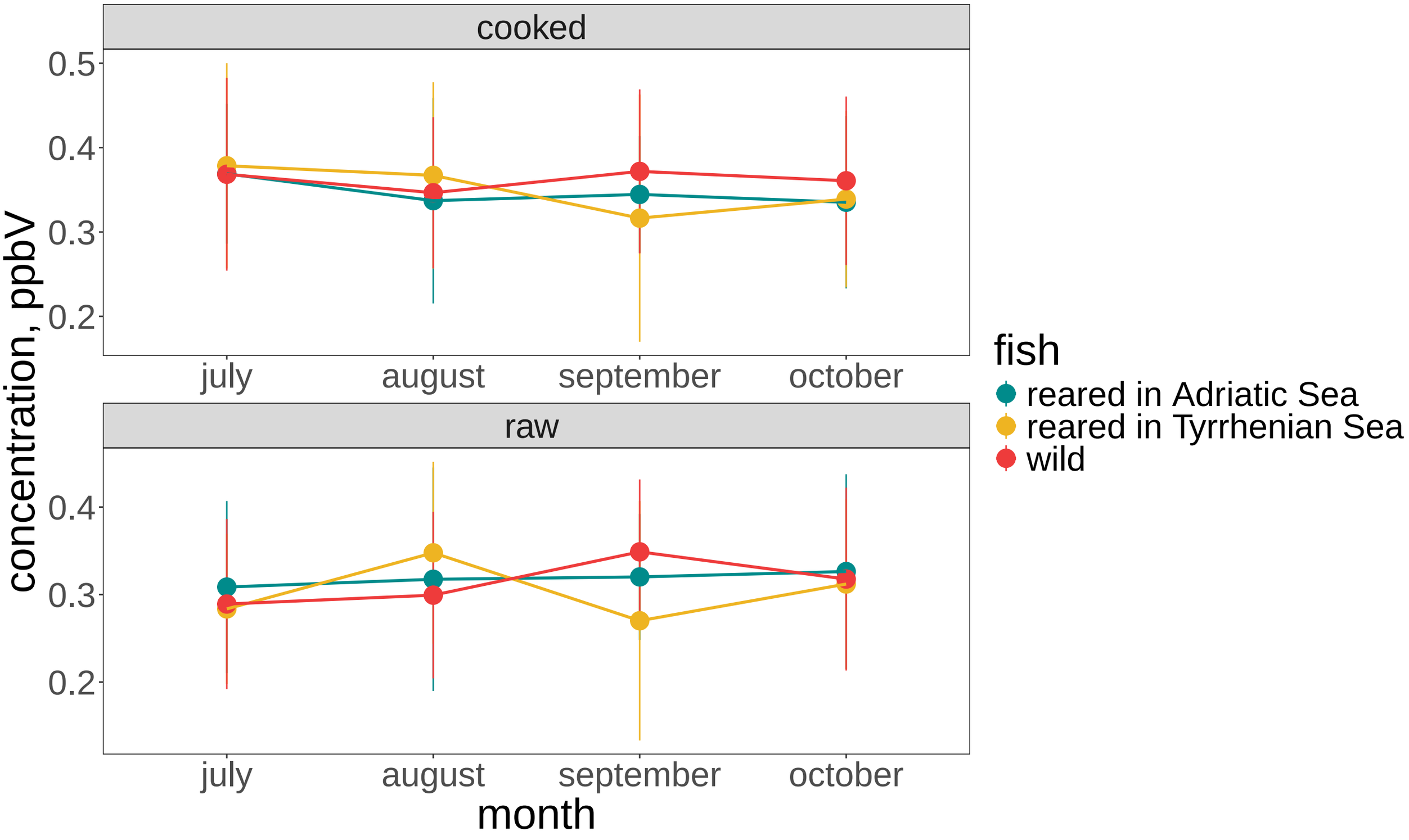
100
75
50
25

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z60.081 C3H9NH+



m/z61.01 C2H4SH+

cooked p<0.001 for origin and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z61.029 C2H4O2H+

cooked p<0.001 for time

raw p<0.001 for time and origin x time

concentration, ppbV

6.0
5.5
5.0
4.5

12
10
8
6

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z65.022 C2H6[34]SH+

cooked p<0.001 for origin and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

10
5
8
6
4
2

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z65.059

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

month

july

august

september

october

fish

reared in Adriatic Sea

reared in Tyrrhenian Sea

wild

m/z67.021

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.20
0.15
0.10
0.05
0.00

0.9
0.6
0.3
0.0

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z67.055 C5H7+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

2.0
1.5
1.0
0.5

1.2
0.9
0.6
0.3

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z69.034 C4H4OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.4
0.3
0.2
0.1

0.125
0.100
0.075

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z69.056

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.6
0.5
0.4
0.3
0.2

0.10
0.08
0.06
0.04
0.02

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z69.071 C5H9+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z71.014

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.05
0.04
0.03
0.02

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z71.05 C4H6OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin and time

concentration, ppbV

0.5
0.4
0.3
0.2
0.1

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z71.086 C5H11+

cooked p<0.001 for origin and time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0
1
2
3
4
2
4
6

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z72.047

cooked p<0.001 for origin and time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.08
0.07
0.06
0.05
0.04

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z73.03 C3H4O2H+

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.8
0.6
0.4

1.2
0.9
0.6
0.3

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z73.048

cooked p<0.001 for time

raw p<0.001 for origin x time

concentration, ppbV

12
10
8
6
4
5
3
2
1

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z73.066 C4H8OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

80
60
40
20
30
20
10
0

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z73.948

cooked p<0.001 for origin and time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.06
0.05
0.016
0.014
0.012
0.010
0.008

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z74.026 C2H4NO2+

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.13
0.12
0.11
0.10
0.09
0.08
0.07

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z75.004

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.024
0.020
0.016
0.012

0.030
0.025
0.020
0.015

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z75.045 C3H6O2H+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

1.4
1.2
1.0
0.8
0.6

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z75.946

cooked p<0.001 for time and origin x time

raw p<0.001 for time and origin x time

concentration, ppbV

0.2
0.1
2
1
0

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z76.952 CS2H+

cooked p<0.001 for time and origin x time

raw p<0.001 for time and origin x time

concentration, ppbV

0.0
0.1
0.2
0.3
0.4

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z77.036 C6H5+

cooked p<0.001 for origin and time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.100
0.075
0.050
0.025

0.05
0.04
0.03

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z77.059 C3H6O*H3O+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z78.048

cooked p<0.001 for time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.24
0.21
0.18
0.15
0.12

0.10
0.08
0.06

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z78.968

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.15
0.10
0.05
0.00

0.20
0.15
0.10
0.05
0.00

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z79.039 C2H6O3H+

cooked

raw p<0.001 for time

concentration, ppbV

1.5
1.4
1.3
1.2
1.1

1.75
1.50
1.25
1.00
0.75

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z79.056 C6H7+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z80.992

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.5
0.4
0.3
0.2
0.1

0.9
0.6
0.3

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z81.037

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.40
0.35
0.30
0.25
0.20
0.15
0.10

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z81.07 C6H9+

cooked p<0.001 for time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

2.5
2.0
1.5
1.0
0.5

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z82.945

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.8
0.6
0.4
0.2
0.0

1.00
0.75
0.50
0.25
0.00

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z82.989

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.15
0.10
0.05

0.4
0.3
0.2
0.1

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z83.021

cooked p<0.001 for origin and time

raw p<0.001 for time and origin x time

concentration, ppbV

0.05
0.04
0.03
0.02

0.040
0.035
0.030
0.025
0.020
0.015

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z83.05 C5H6OH+

cooked p<0.001 for origin and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.8
0.6
0.4
0.2
0.4
0.3
0.2
0.1

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z83.086 C6H11+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin

concentration, ppbV

15
10
5
0

2.0
1.5
1.0
0.5
0.0

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z84.048

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.08
0.07
0.06
0.05
0.04
0.03

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z85.029 C4H4O2H+

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.25
0.20
0.15
0.10

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z85.065 C5H8OH+

cooked p<0.001 for origin and origin x time

raw p<0.001 for origin and time

concentration, ppbV

0.6
0.4
0.2

0.20
0.15
0.10
0.05

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z85.101 C6H13+

cooked p<0.001 for time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.9
0.6
0.3
1.5
1.0
0.5

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z87.045 C4H6O2H+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin and time

concentration, ppbV

0.6
0.5
0.4
0.3
0.2

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z87.081 C5H10OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

month

july

august

september

october

fish

reared in Adriatic Sea

reared in Tyrrhenian Sea

wild

m/z89.06 C4H8O2H+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for time

concentration, ppbV

0.5
0.4
0.3
0.2
0.1

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z91.055 C7H7+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.8
0.6
0.4
0.2

0.7
0.6
0.5
0.4
0.3
0.2

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z91.074 C4H10O2H+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z91.955

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.275
0.250
0.225
0.200

0.028
0.024
0.020
0.016

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z92.034

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.016
0.014
0.012
0.010
0.008

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z93.038 C3H8OSH+

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

2.50
2.25
2.00
1.75
1.50

3.5
3.0
2.5
2.0
1.5

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z93.071 C7H9+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

4
2
0
−2

4
3
2
1

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z93.956

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.22
0.21
0.20
0.19

0.17
0.16
0.15

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z95.015

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin and time

concentration, ppbV

0.6
0.5
0.4
0.3

1.50
1.25
1.00
0.75
0.50

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z95.049 C6H6OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.7
0.6
0.5
0.4

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z95.086 C7H11+

cooked p<0.001 for origin and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.6
0.4
0.2

0.21
0.18
0.15
0.12

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z96.962

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.4
0.3
0.2
0.1

1.00
0.75
0.50
0.25

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z97.029 C5H4O2H+

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.175
0.150
0.125
0.100
0.075

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z97.065 C6H8OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z97.102 C7H13+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.8
0.6
0.4
0.2

0.25
0.20
0.15
0.10
0.05

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z97.952

cooked p<0.001 for origin and time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.0225
0.0200
0.0175
0.0150
0.0125

0.025
0.020
0.015
0.010

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z98.026

cooked p<0.001 for time

raw p<0.001 for origin and time

concentration, ppbV

0.07
0.06
0.05
0.04

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z98.958

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.6
0.4
0.2
0.3
0.2
0.1

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z99.045 C5H6O2H+

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.30
0.25
0.20
0.15
0.10

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z99.081 C6H10OH+

cooked p<0.001 for origin and origin x time

raw p<0.001 for origin and time

concentration, ppbV

0.20
0.16
0.12
0.08

0.150
0.125
0.100
0.075
0.050

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z99.117 C7H15+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.07
0.06
0.05
0.04
0.03
0.02

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z101.025 C4H5O3+

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.25
0.20
0.15
0.10

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z101.06 C5H8O2H+

cooked p<0.001 for origin and time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

month

july

august

september

october

fish

reared in Adriatic Sea

reared in Tyrrhenian Sea

wild

m/z101.097 C6H12OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin and time

concentration, ppbV

month

july

august

september

october

fish

- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z102.023

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.040
0.035
0.030
0.025
0.020
0.015

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z103.041

cooked p<0.001 for origin and time

raw p<0.001 for origin

concentration, ppbV

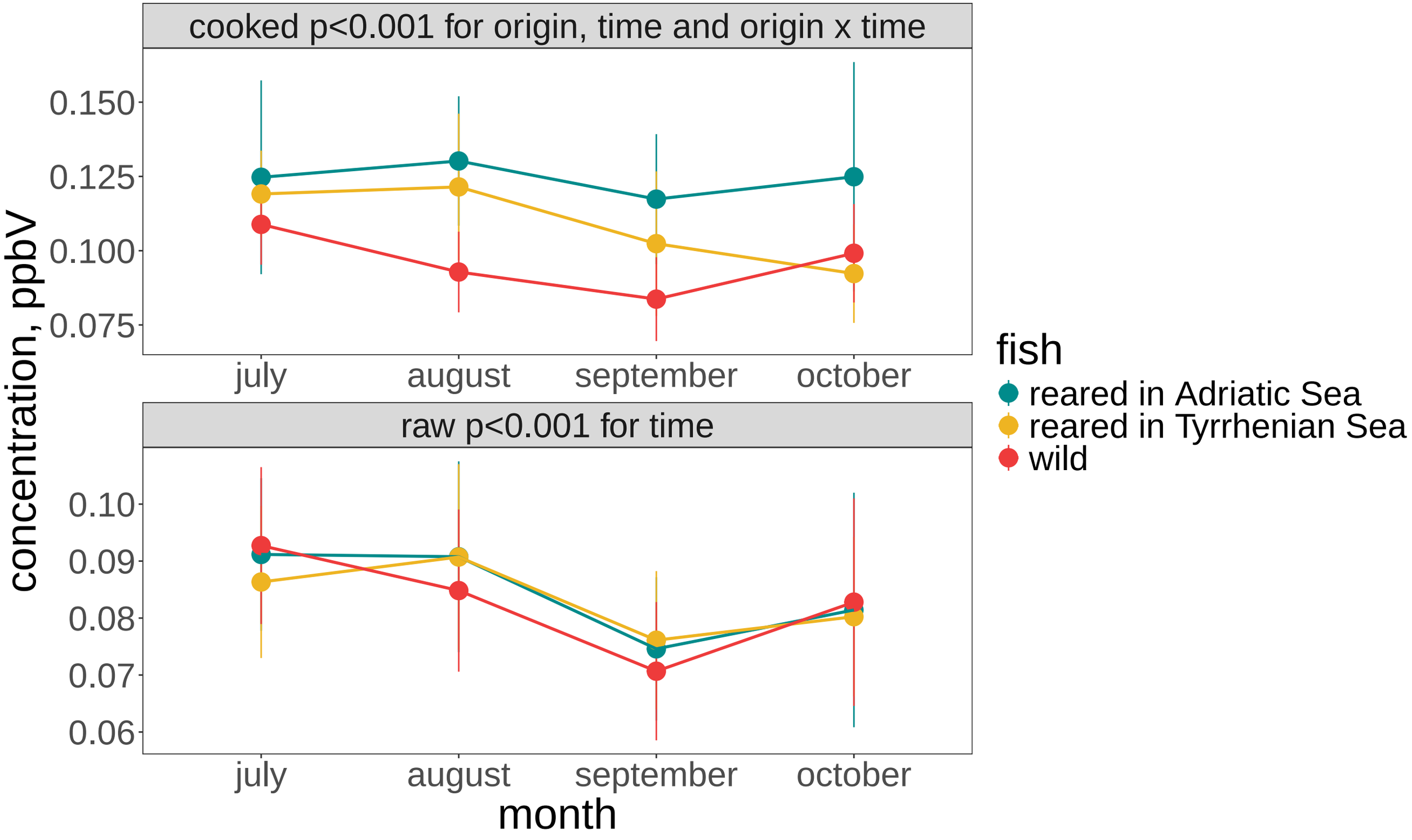
0.10
0.09
0.08
0.07
0.06
0.05

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z103.076 C5H10O2H+



m/z104.04

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.020
0.016
0.012
0.008

0.0175
0.0150
0.0125
0.0100

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z104.07 C4H9NO2H+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for time and origin x time

concentration, ppbV

0.016
0.014
0.012
0.010
0.008

0.030
0.025
0.020
0.015
0.010

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z105.038

cooked p<0.001 for time

raw p<0.001 for origin and time

concentration, ppbV

0.06
0.04
0.02
0.05
0.04
0.03
0.02
0.01

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z105.072 C8H9+

cooked p<0.001 for time and origin x time

raw p<0.001 for time and origin x time

concentration, ppbV

2
1
1.5
1.0
0.5

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z106.042

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.008
0.006
0.004
0.007
0.005
0.003
0.002

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z106.964

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.14
0.12
0.10
0.08

0.20
0.15
0.10

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z107.051 C7H6OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.5
0.4
0.3
0.2

0.125
0.100
0.075
0.050
0.025

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z107.087 C8H10H+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

6
4
2
4
3
2
1

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z109.027

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.08
0.06
0.04

0.20
0.15
0.10
0.05

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z109.068

cooked p<0.001 for origin and time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.20
0.16
0.12
0.08

0.10
0.09
0.08
0.07
0.06
0.05

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z109.102 C8H13+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z110.964

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.08
0.07
0.06
0.05
0.04

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z111.046 C6H6O2H+?

cooked p<0.001 for time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

1.1
1.0
0.9
0.8
0.7
0.6

1.0
0.8
0.6
0.4

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z111.082 C7H10OH+

cooked p<0.001 for origin and origin x time

raw p<0.001 for origin and time

concentration, ppbV

0.5
0.4
0.3
0.2
0.1

0.20
0.15
0.10
0.05
0.00

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z111.117 C8H15+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

1.00
0.75
0.50
0.25

0.25
0.20
0.15
0.10

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z111.965

cooked p<0.001 for time

raw p<0.001 for origin x time

concentration, ppbV

0.044
0.042
0.040
0.038

0.0225
0.0200
0.0175

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z113.026

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

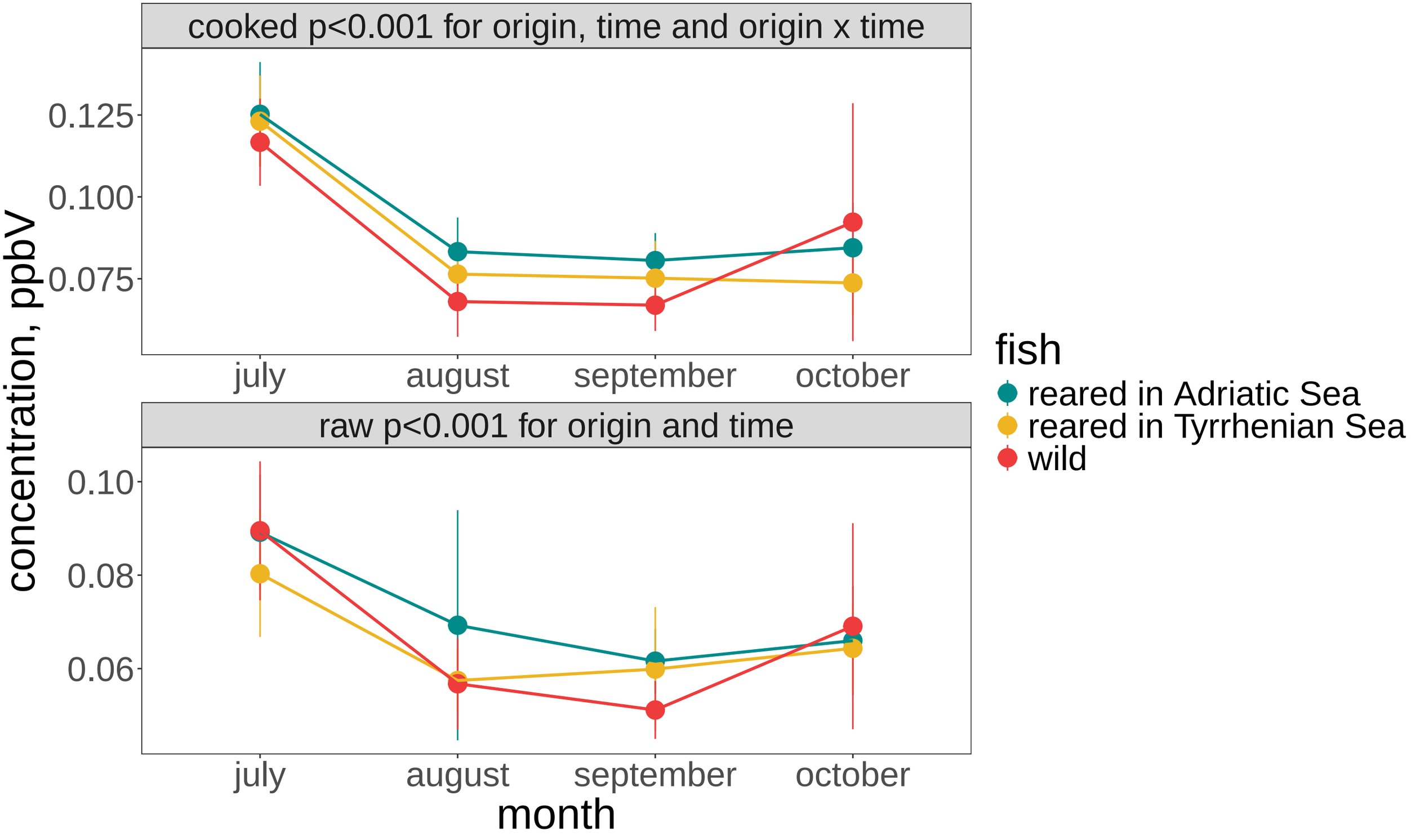
0.6
0.5
0.4
0.3
0.2

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z113.059 C6H8O2H+



m/z113.097 C7H12OH+

cooked p<0.001 for origin and origin x time

raw p<0.001 for origin and time

concentration, ppbV

0.15
0.10
0.05
0.04
0.03
0.02
0.01

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z113.132 C8H17+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.10

0.05

july

august

september

october

month

fish

reared in Adriatic Sea

reared in Tyrrhenian Sea

wild

m/z115.041

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.125
0.100
0.075
0.050
0.025

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z115.076 C6H10O2H+

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.12
0.10
0.08
0.06

0.09
0.08
0.07
0.06
0.05

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z115.113 C7H14OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.3
0.2
0.1

0.06
0.05
0.04
0.03
0.02

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z116.035

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.04
0.03
0.02

0.030
0.025
0.020
0.015

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z116.112

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin and time

concentration, ppbV

0.030
0.025
0.020
0.015
0.010
0.008
0.006
0.004

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z116.907

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.04
0.03
0.02
0.01

0.075
0.050
0.025

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z117.02

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.07
0.06
0.05
0.04
0.03
0.02

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z117.057 C8H7N+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.06
0.05
0.04
0.03
0.02

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z117.092 C6H12O2H+

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.20
0.15
0.10
0.05

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z118.05

cooked p<0.001 for origin and time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.020
0.015
0.010

0.0125
0.0100
0.0075
0.0050

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z119.037

cooked p<0.001 for origin and time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.10
0.08
0.06
0.04
0.02

0.07
0.06
0.05
0.04
0.03
0.02

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z119.095

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.75
0.50
0.25
0.15
0.10
0.05
0.00

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z120.958

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.09
0.08
0.07
0.06

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z121.004

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.12
0.08
0.04
0.00

0.015
0.010
0.005

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z121.067 C5H12OSH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.14
0.12
0.10
0.08
0.06
0.04

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z121.103 C9H13+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z122.969

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.0250
0.0225
0.0200
0.0175
0.0150
0.0125

0.013
0.011
0.009
0.007

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z123.046 C7H6O2H+

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.08
0.07
0.06
0.05
0.04

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z123.082 C8H10OH+

cooked p<0.001 for origin and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.07
0.06
0.05
0.04
0.03
0.02

0.024
0.020
0.016
0.012

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z123.118 C9H15+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.12
0.10
0.08
0.06
0.04

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z123.948

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.125
0.100
0.075
0.050

0.24
0.21
0.18

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z125.026

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.05
0.04
0.03
0.02

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z125.06 C7H8O2H+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin and time

concentration, ppbV

0.06
0.04
0.02

0.05
0.04
0.03
0.02

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z125.097 C8H12OH+

cooked p<0.001 for origin and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.3
0.2
0.1

0.125
0.100
0.075
0.050
0.025

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z125.133 C9H17+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.125
0.100
0.075
0.050
0.025

0.06
0.04
0.02

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z125.96

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.38
0.36
0.34

0.450
0.425
0.400
0.375
0.350

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z126.967

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.56
0.54
0.52
0.50
0.48

0.50
0.45
0.40
0.35
0.30

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z127.04 C6H6O3H+

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.04
0.03
0.02
0.01

0.05
0.04
0.03
0.02
0.01

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z127.075 C7H10O2H+

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.05
0.04
0.03
0.02

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z127.113 C8H14OH+

cooked p<0.001 for origin and origin x time

raw p<0.001 for origin and time

concentration, ppbV

0.15
0.12
0.09
0.06
0.05
0.04
0.03
0.02

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z127.942

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.006
0.005
0.004
0.003
0.002
0.001

0.024
0.020
0.016
0.012

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z127.966

cooked p<0.001 for time

raw

concentration, ppbV

0.024
0.023
0.022
0.021
0.020
0.019
0.018
0.016
0.014

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z128.041

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.025
0.020
0.015
0.010
0.005

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z129.057 C6H8O3H+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.125
0.100
0.075
0.050

0.10
0.08
0.06
0.04

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z129.091 C7H12O2H+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.05
0.04
0.03
0.02

0.040
0.035
0.030
0.025
0.020

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z129.128 C8H16OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.3
0.2
0.1
0.05
0.04
0.03
0.02

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z130.966

cooked p<0.001 for time

raw

concentration, ppbV

0.008
0.007
0.006
0.005
0.004

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z131.036

cooked p<0.001 for time and origin x time

raw p<0.001 for time and origin x time

concentration, ppbV

0.04

0.03

0.02

july

august

september

october

month

fish

- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z131.073 C6H10O3H+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.03
0.02
0.01

0.025
0.020
0.015
0.010

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z131.108 C7H14O2H+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin and time

concentration, ppbV

0.030
0.025
0.020
0.015
0.010

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z132.033

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.010
0.008
0.006
0.004
0.002

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z132.07

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.006
0.005
0.004
0.003
0.002
0.001

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z133.028

cooked p<0.001 for time

raw p<0.001 for origin and time

concentration, ppbV

0.09
0.08
0.07
0.06
0.05
0.04

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z133.102 C10H13+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.16
0.12
0.08
0.04

0.075
0.050
0.025

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z135.041

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin and time

concentration, ppbV

0.020
0.015
0.010
0.012
0.010
0.008
0.006

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z135.086

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.10
0.08
0.06
0.04
0.02

0.06
0.05
0.04
0.03
0.02

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z135.118 C10H15+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.8
0.6
0.4
0.2

0.5
0.4
0.3
0.2
0.1

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z136.024

cooked p<0.001 for time

raw p<0.001 for origin and time

concentration, ppbV

0.08
0.06
0.04
0.02

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z136.078

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for time

concentration, ppbV

0.009
0.007
0.005
0.008
0.006
0.004

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z136.955

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.011
0.009
0.007
0.005

0.0225
0.0200
0.0175
0.0150
0.0125
0.0100

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z137.027

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.016
0.012
0.008
0.012
0.010
0.008
0.006
0.004

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z137.061 C8H8O2H+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin and time

concentration, ppbV

0.030
0.025
0.020
0.015
0.010

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z137.102

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.05
0.04
0.03
0.02
0.01

0.030
0.025
0.020
0.015
0.010

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z137.134 C10H17+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for time and origin x time

concentration, ppbV

0.6
0.5
0.4
0.3
0.2

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z137.96

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.060
0.055
0.050
0.045

0.06
0.05
0.04
0.03

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z139.042

cooked p<0.001 for time

raw p<0.001 for origin and time

concentration, ppbV

0.030
0.025
0.020
0.015
0.010

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z139.076 C8H10O2+

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.04
0.03
0.02
0.01

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z139.113 C9H14OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.25
0.20
0.15
0.10
0.05
0.04
0.03
0.02

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z139.148 C10H19+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin and time

concentration, ppbV

0.020
0.015
0.010
0.005

0.0150
0.0125
0.0100
0.0075
0.0050

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z141.047

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.04
0.03
0.02
0.01

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z141.09 C8H13O2+

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.03
0.02
0.01

0.030
0.025
0.020
0.015
0.010

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z141.13 C9H16OH+

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.04
0.03
0.02
0.01

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z141.954

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.07
0.06
0.05
0.04
0.03
0.02
0.01

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z142.026

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.008
0.006
0.004
0.002

0.006
0.005
0.004
0.003
0.002
0.001

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z142.066

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.020
0.015
0.010
0.005

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z143.036

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.020
0.015
0.010
0.005

0.016
0.012
0.008
0.004

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z143.073

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

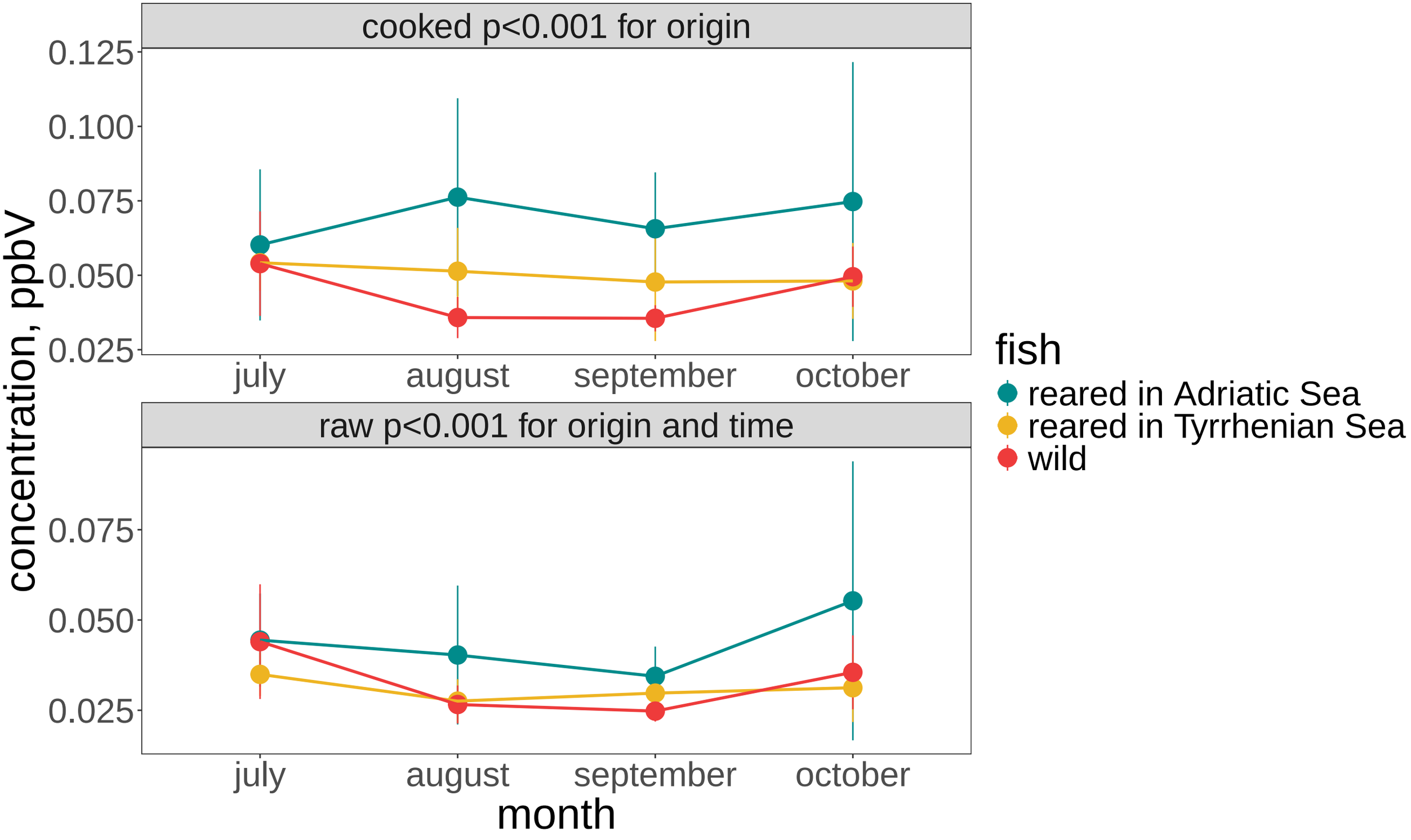
0.05
0.04
0.03
0.02
0.01

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z143.108 C8H14O2H+



m/z143.144 C9H18OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.3
0.2
0.1

0.07
0.06
0.05
0.04
0.03
0.02

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z144.059

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.010
0.005
0.009
0.006
0.003

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z144.102

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.0125
0.0100
0.0075
0.0050
0.0025

0.008
0.006
0.004
0.002

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z144.977

cooked p<0.001 for time

raw p<0.001 for time and origin x time

concentration, ppbV

0.014
0.013
0.012
0.011
0.010
0.009
0.008
0.007
0.006
0.005
0.004
0.003

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z145.05

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.020
0.015
0.010
0.005

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z145.088

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.010
0.005
0.0075
0.0050
0.0025

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z145.124 C8H16O2H+

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.040
0.035
0.030
0.025
0.020
0.015

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z147.052

cooked p<0.001 for origin and time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.025
0.020
0.015
0.010
0.005

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z147.118 C11H15+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.06
0.05
0.04
0.03
0.02
0.01

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z149.034

cooked p<0.001 for time

raw p<0.001 for origin and time

concentration, ppbV

0.10
0.08
0.06
0.04
0.03

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z149.127

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.100
0.075
0.050
0.025

0.05
0.04
0.03
0.02
0.01

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z151.036

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.035
0.030
0.025
0.020
0.015
0.010

0.0200
0.0175
0.0150
0.0125
0.0100
0.0075

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z151.075 C9H10O2H+

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.0125
0.0100
0.0075
0.0050

0.010
0.008
0.006
0.004
0.002

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z151.113 C10H14OH+

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.05
0.04
0.03
0.02

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z151.149 C11H19+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.06
0.04
0.02
0.04
0.03
0.02
0.01

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z153.054 C8H8O3H+

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.025
0.020
0.015
0.010
0.005

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z153.093 C9H12O2H+

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.025
0.020
0.015
0.010
0.005

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z153.131 C10H16OH+

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for time

concentration, ppbV

0.05
0.04
0.03
0.02

0.030
0.025
0.020
0.015

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z157.05

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.020
0.015
0.010
0.005

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z157.088

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.025
0.020
0.015
0.010
0.005

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z157.123 C9H16O2H+

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.025
0.020
0.015
0.010

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z157.16 C10H20OH+

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.04
0.03
0.02
0.01

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z159.067

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.012
0.008
0.004

0.0125
0.0100
0.0075
0.0050
0.0025

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z159.138 C9H18O2H+

cooked p<0.001 for origin and time

raw p<0.001 for time

concentration, ppbV

0.04
0.03
0.02
0.01

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z160.894

cooked

raw

concentration, ppbV

0.035
0.030
0.025
0.020

0.004
0.003
0.002
0.001

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z161.049

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.008
0.006
0.004
0.002

0.006
0.005
0.004
0.003
0.002

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z161.098

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.016
0.012
0.008
0.004

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z161.14

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin and time

concentration, ppbV

0.03
0.02
0.01

0.016
0.012
0.008
0.004

july
august
september
october

month

fish
reared in Adriatic Sea
reared in Tyrrhenian Sea
wild

m/z163.069

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.0150
0.0125
0.0100
0.0075

0.012
0.010
0.008
0.006

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z163.136 C8H18O3H+

cooked p<0.001 for origin and time

raw p<0.001 for origin and time

concentration, ppbV

0.018
0.015
0.012
0.009
0.006

0.0150
0.0125
0.0100
0.0075
0.0050

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z167.056

cooked p<0.001 for time

raw p<0.001 for origin and time

concentration, ppbV

0.20
0.15
0.10
0.05
0.00

0.08
0.06
0.04
0.02

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z167.114

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.016
0.012
0.008
0.004

0.0125
0.0100
0.0075
0.0050
0.0025

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z167.156 C10H18N2H+

cooked p<0.001 for origin and origin x time

raw p<0.001 for time

concentration, ppbV

0.04
0.03
0.02
0.01

0.006
0.004
0.002

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z177.062

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.007
0.006
0.005
0.004
0.003
0.002

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z177.15 C9H20O3H+

cooked p<0.001 for time and origin x time

raw p<0.001 for time

concentration, ppbV

0.020
0.015
0.010
0.005

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z183.089

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.010
0.008
0.006
0.004
0.002

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z183.14 C11H18O2H+

cooked p<0.001 for time

raw p<0.001 for time

concentration, ppbV

0.006
0.005
0.004
0.003
0.002

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild

m/z183.198

cooked p<0.001 for origin, time and origin x time

raw p<0.001 for origin, time and origin x time

concentration, ppbV

0.007
0.006
0.005
0.004
0.003
0.002
0.001

july
august
september
october

month

fish
- reared in Adriatic Sea
- reared in Tyrrhenian Sea
- wild