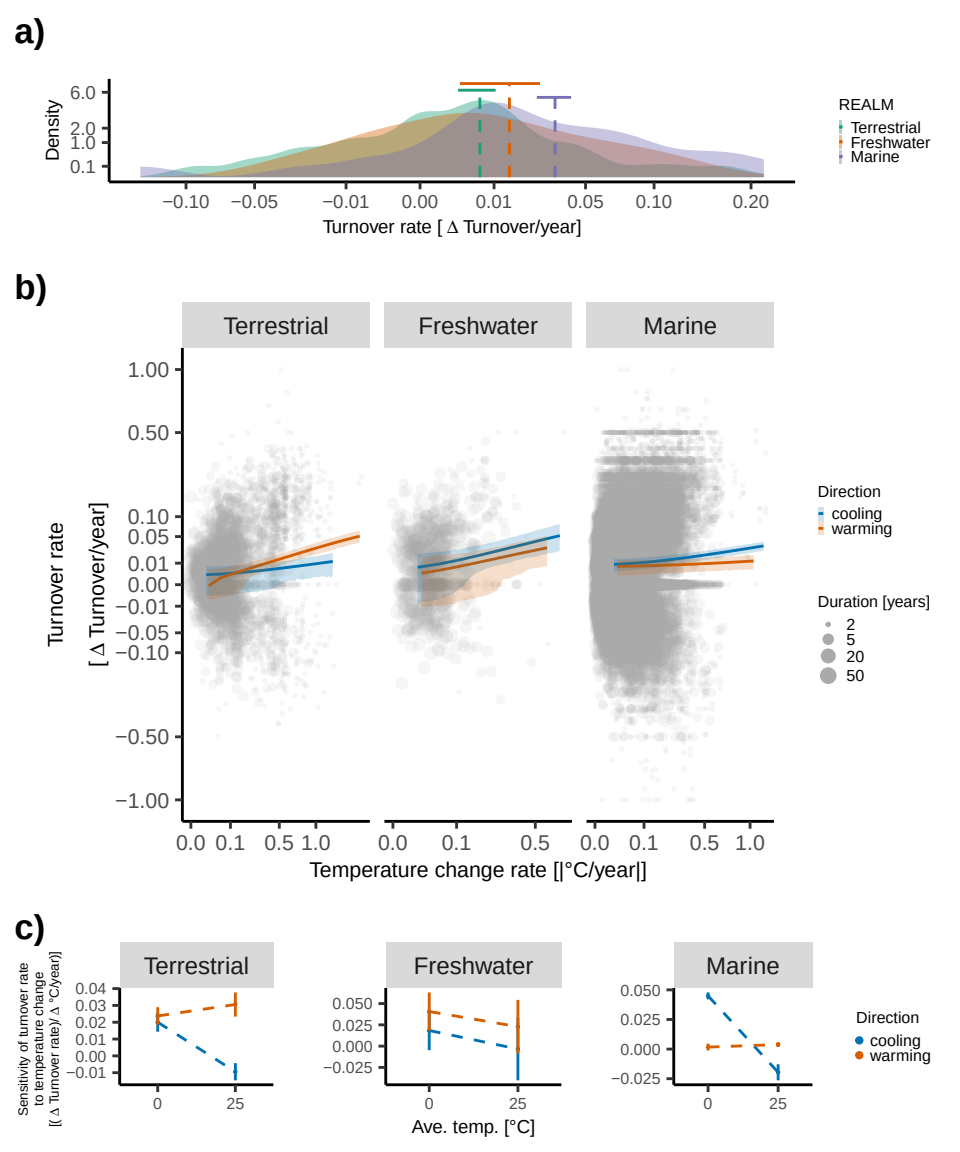
a)
Density
6.0
2.0
1.0
0.1
−0.10
−0.05
−0.01
0.00
0.01
0.05
0.10
0.20
Turnover rate [Δ Turnover/year]
REALM
Terrestrial
Freshwater
Marine
b)
Terrestrial
Freshwater
Marine
Turnover rate
[Δ Turnover/year]
1.00
0.50
0.10
0.05
0.01
0.00
−0.01
−0.05
−0.10
−0.50
−1.00
0.0
0.1
0.5
1.0
Temperature change rate [|°C/year|]
Direction
cooling
warming
Duration [years]
2
5
20
50
c)
Terrestrial
Freshwater
Marine
Sensitivity of turnover rate to temperature change [(Δ Turnover rate)/ Δ °C/year)]
0.04
0.03
0.02
0.01
0.00
−0.01
0.050
0.025
0.000
−0.025
0
25
Ave. temp. [°C]
Direction
cooling
warming