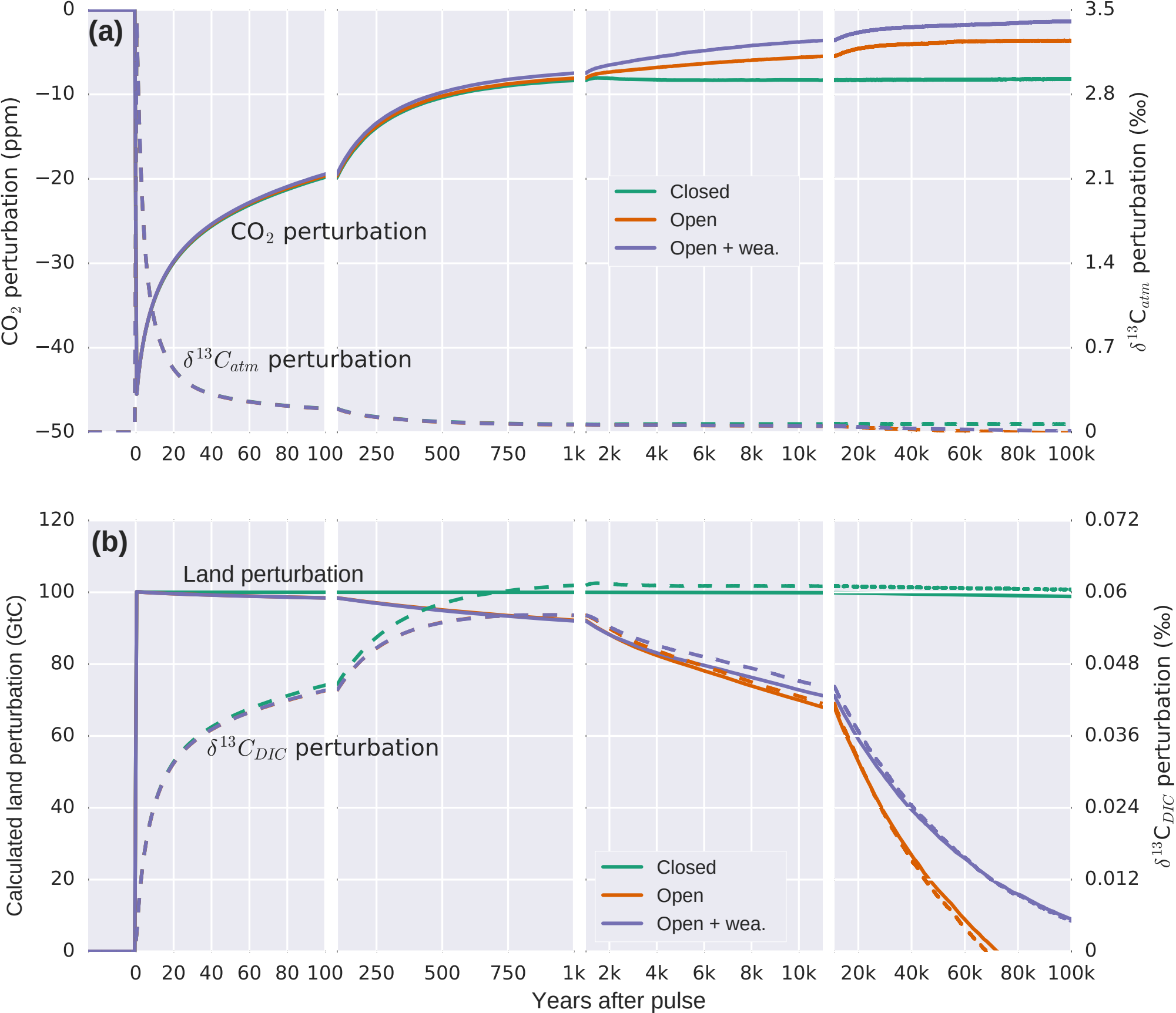
(a)
CO2 perturbation (ppm)
δ13Catm perturbation (‰)
CO2 perturbation
δ13Catm perturbation
Closed
Open
Open + wea.
0
−10
−20
−30
−40
−50
3.5
2.8
2.1
1.4
0.7
0
0 20 40 60 80 100 250 500 750 1k 2k 4k 6k 8k 10k 20k 40k 60k 80k 100k
(b)
Calculated land perturbation (GtC)
δ13CDIC perturbation (‰)
Land perturbation
δ13CDIC perturbation
Closed
Open
Open + wea.
120
100
80
60
40
20
0
0.072
0.06
0.048
0.036
0.024
0.012
0
0 20 40 60 80 100 250 500 750 1k 2k 4k 6k 8k 10k 20k 40k 60k 80k 100k
Years after pulse