

Supplement

Recently fixed carbon fuels microbial activity several meters below the soil surface

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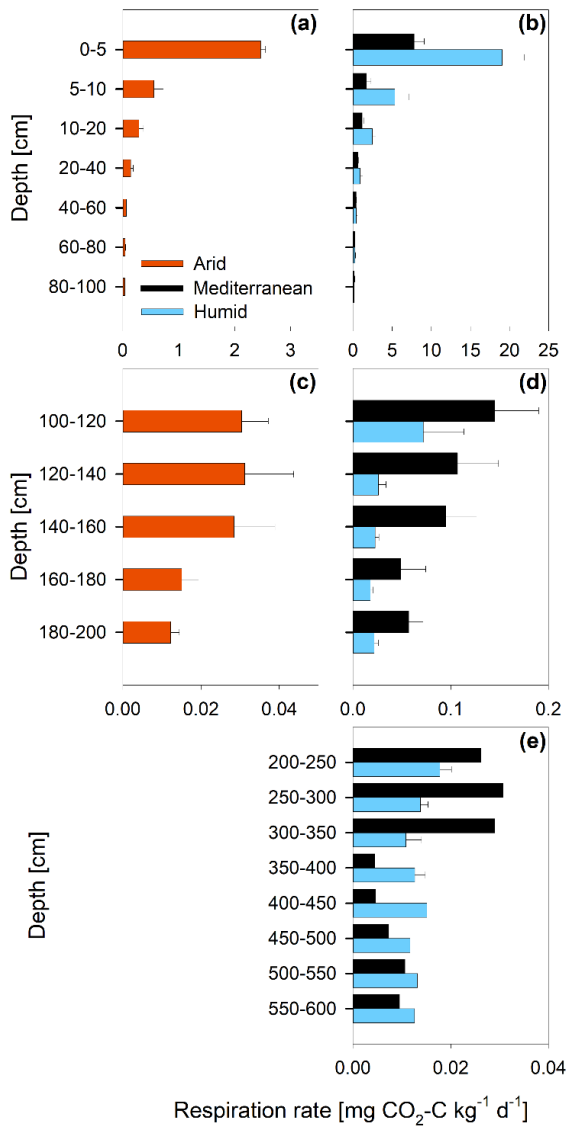


Figure S1: Soil respiration rate (mean \pm standard error) of soil depth increments down to (a, b) 100 cm, (c, d) 200 cm, and (e) 600 cm depth at three sites (arid, mediterranean, humid) located along a precipitation gradient in the Coastal Cordillera of Chile (0-200 cm: n = 3, except for humid site with n = 4; > 200 cm: n = 1, except for humid site 200-400 cm with n = 2).

25 **Table S1:** Percentage (% (w/w)) of soil fine fraction (<2 mm; mean \pm standard error) in soils at three sites (arid, mediterranean, humid) located along a precipitation gradient in the Coastal Cordillera of Chile (0–200 cm: n = 3, except for humid site with n = 4; 200–600 cm: n = 1, except for humid site 200–400 cm with n = 2).

| Depth [cm] | Fine fraction (< 2 mm) [%] | | |
|------------|----------------------------|-----------------|-----------------|
| | Arid | Mediterranean | Humid |
| 0 - 5 | 87.2 \pm 3.0 | 97.8 \pm 1.5 | 92.7 \pm 2.2 |
| 5 - 10 | 87.3 \pm 2.0 | 98.4 \pm 1.1 | 91.4 \pm 1.9 |
| 10 - 20 | 83.5 \pm 2.0 | 98.7 \pm 1.1 | 91.1 \pm 1.6 |
| 20 - 40 | 68.9 \pm 9.5 | 99.3 \pm 0.4 | 83.3 \pm 10.0 |
| 40 - 60 | 59.7 \pm 8.2 | 99.7 \pm 0.03 | 87.0 \pm 2.8 |
| 60 - 80 | 59.3 \pm 6.7 | 99.6 \pm 0.1 | 88.8 \pm 3.9 |
| 80 - 100 | 59.2 \pm 8.1 | 99.4 \pm 0.1 | 78.3 \pm 4.2 |
| 100 - 120 | 61.8 \pm 5.8 | 98.6 \pm 0.4 | 73.7 \pm 10.8 |
| 120 - 140 | 54.1 \pm 1.9 | 98.2 \pm 0.7 | 77.3 \pm 8.2 |
| 140 - 160 | 53.6 \pm 4.8 | 97.6 \pm 0.7 | 84.9 \pm 2.7 |
| 160 - 180 | 50.7 \pm 2.9 | 96.6 \pm 1.2 | 88.7 \pm 3.2 |
| 180 - 200 | 46.7 \pm 0.8 | 96.1 \pm 1.4 | 86.6 \pm 1.9 |
| 200 - 250 | | 95.6 | 86.8 \pm 2.5 |
| 250 - 300 | | 94.4 | 82.3 \pm 0.9 |
| 300 - 350 | | 93.0 | 81.0 \pm 2.6 |
| 350 - 400 | | 93.7 | 80.6 \pm 3.3 |
| 400 - 450 | | 95.2 | 72.3 |
| 450 - 500 | | 96.0 | 77.2 |
| 500 - 550 | | 94.5 | 77.7 |
| 550 - 600 | | 96.2 | 71.9 |