1 *Supplement of*

2 Global pattern and drivers of soil dissolved organic carbon

4 Tianjing Ren et al.

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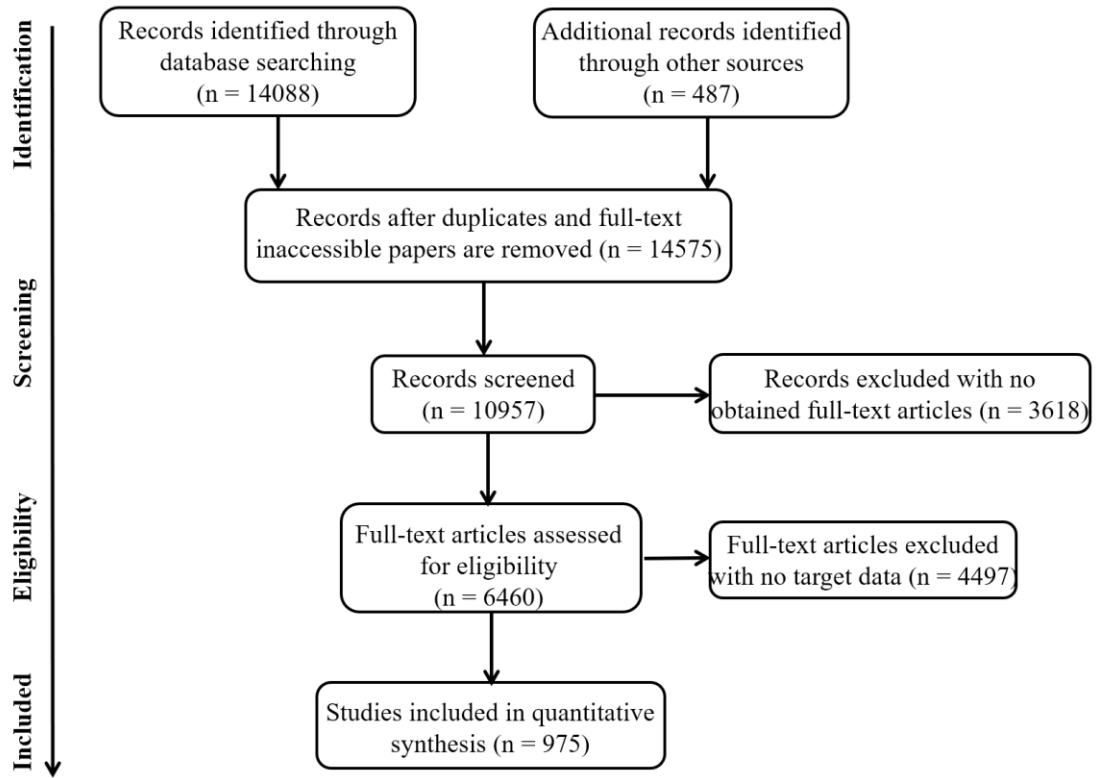
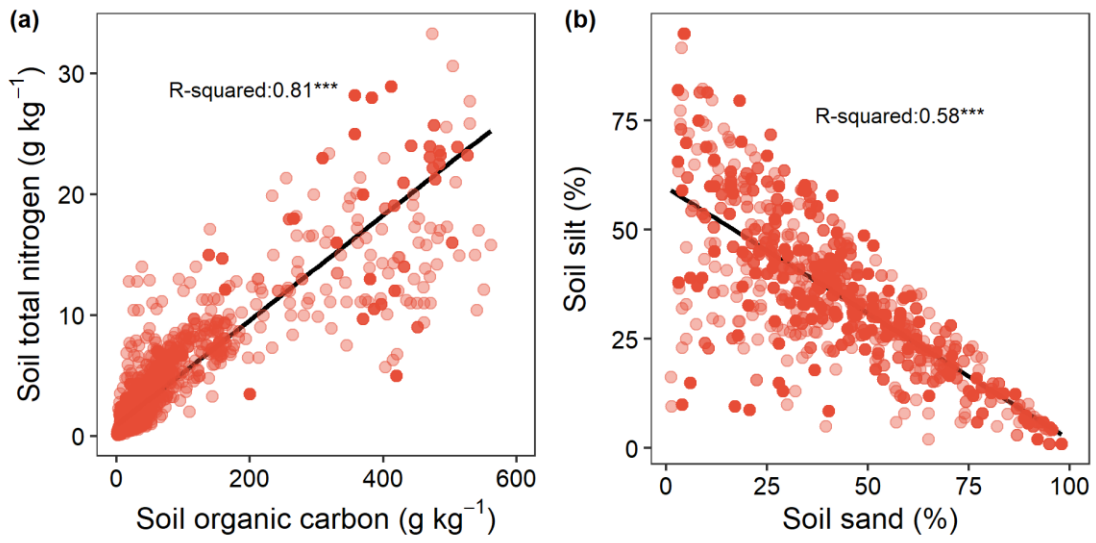
7   **Fig. S1** PRISMA flow diagram showing the procedure used for selection of studies for synthesis.

10   **Fig. S2** The autocorrelation between predictors. **(a)** The relationship between soil organic carbon and

11   soil total nitrogen. **(b)** The relationship between soil clay and silt content.

14   **Fig. S3** The validation of random forest models for soil dissolved organic carbon (DOC). **a** Results of

15   *K*-fold cross-validation. **b** Model calibration between observation and prediction values.

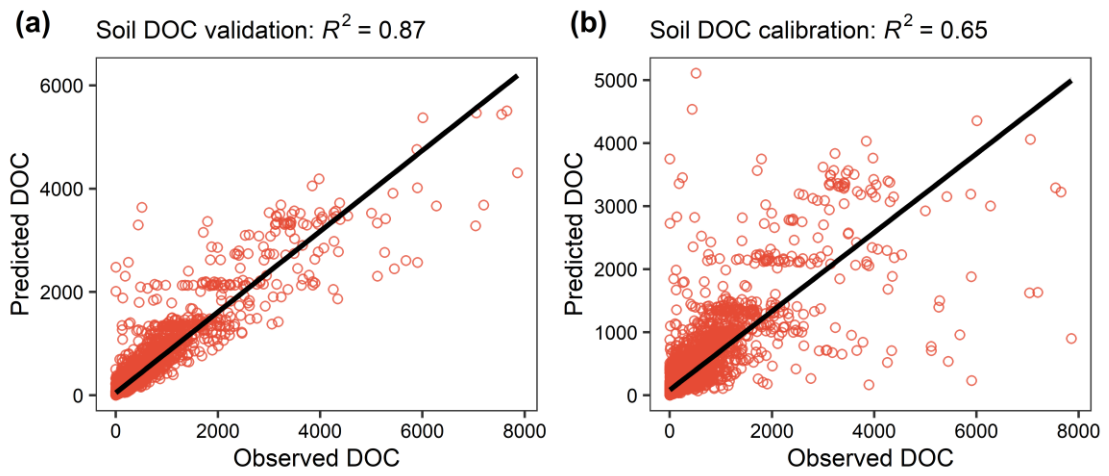
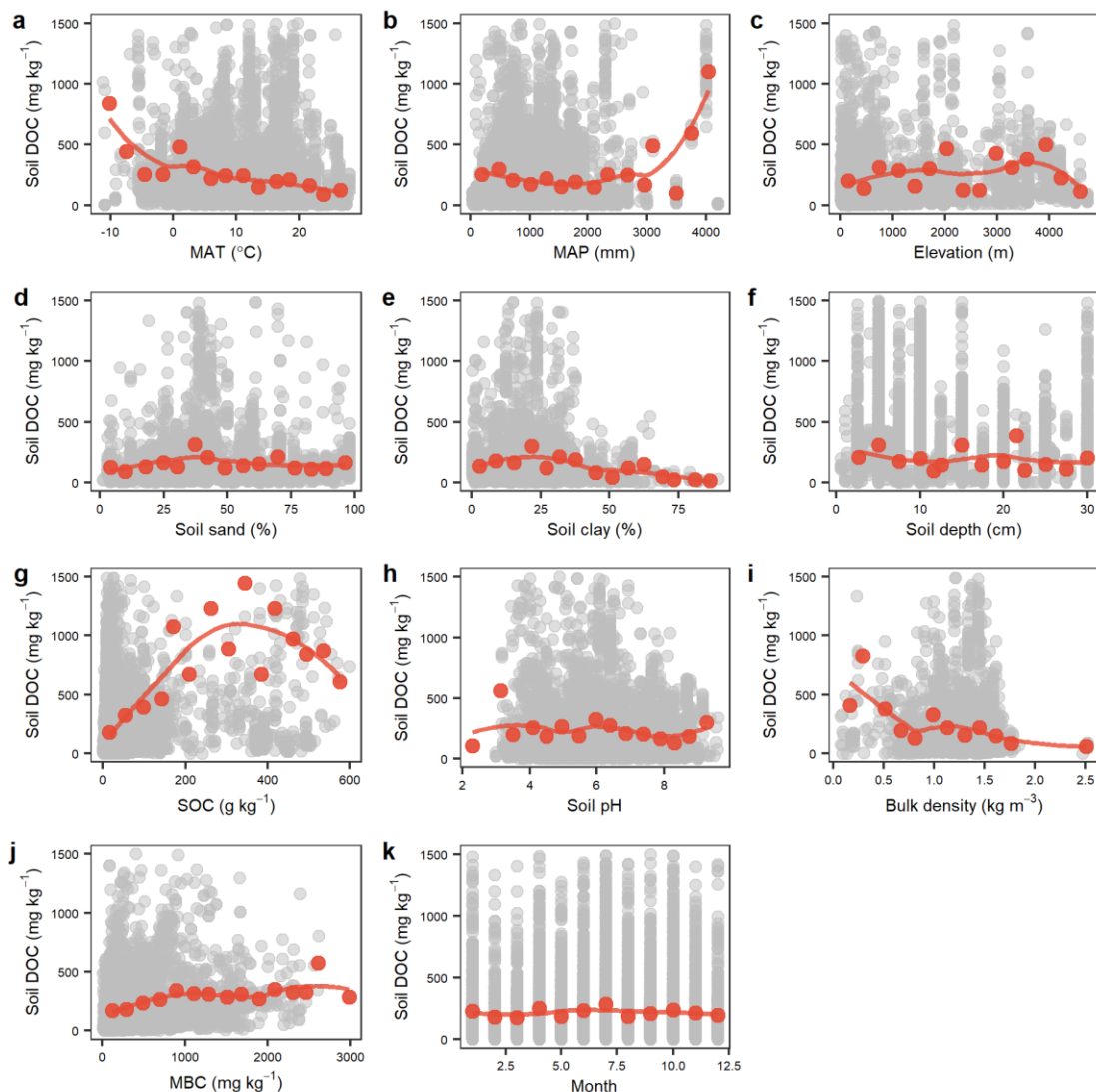



Fig. S4 The relationship between soil dissolved organic carbon (DOC) concentration and predictors. Soil DOC concentration in relation to mean annual temperature (MAT), mean annual precipitation (MAP), elevation, soil sand content, soil clay content, soil depth, soil organic carbon (SOC) content, soil pH, bulk density, and month (**a, b, c, d, e, f, g, h, i, j, k,** respectively). Binned soil DOC concentration measures by 15 groups for predictors, except for month (12 groups). Red dots represent the mean values. Solid red lines indicate results of local polynomial regressions based on the binned mean values. For visualization, we chose to limit the y-axis to 1600 mg kg^{-1}.

27 **Fig. S5** Standard deviation (SD) of predicted soil dissolved organic carbon concentration (mg kg^{-1}).

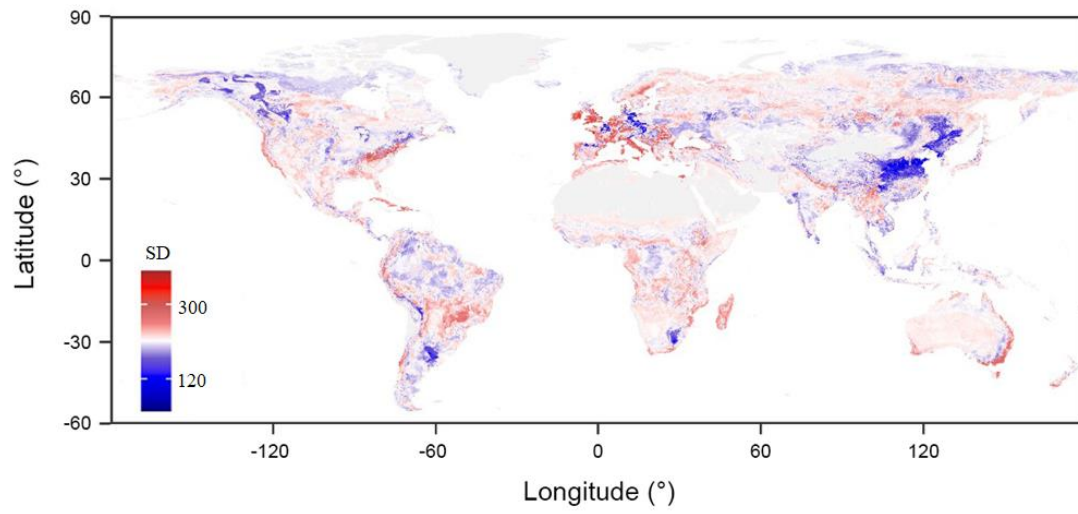



Table S1. Summary of independent variables used in this study to predict soil dissolved organic carbon concentration.

Groups	Variables	Original resolution	Data source
Climate	Mean annual temperature	1 km	http://worldclim.org/bioclim
	Mean annual precipitation	1 km	http://worldclim.org/bioclim
	Elevation	1 km	http://worldclim.org/bioclim
Plants	Ecosystem	1 km	https://sedac.ciesin.columbia.edu
Soil	Soil organic carbon	250 m	https://openlandmap.org
	Soil pH	250 m	https://openlandmap.org
	Sand	250 m	https://openlandmap.org
	Cay	250 m	https://openlandmap.org
	Bulk density	250 m	https://openlandmap.org
	Microbial biomass carbon	1 km	https://doi.org/10.6084/m9.figshare.19556419.
	Soil depth	10 km	http://globalchange.bnu.edu.cn/research/data

Table S2. Comparison of model performance for all applied predictive models. Using the assembled soil dissolved organic carbon concentration, seven models were applied (linear regression model, lasso regression model, elastic net model, bagged cart model, boosted regression trees model, cubist regression model, and random forest model). The R^2 and root-mean-square error (RMSE) were calculated from 10-fold cross-validation to assess model performance.

Model	RMSE	R^2	Regression	Model type
LM	410	0.108	Linear	Non-selective
LEAPS	427	0.101	Linear	Variable selective
ENET	425	0.101	Linear	Variable selective
BAGGED	332	0.420	Non-linear	Machine learning
BOOSTED	315	0.485	Non-linear	Machine learning
CUBIST	254	0.666	Non-linear	Machine learning
RF	250	0.674	Non-linear	Machine learning

42   **Supplementary Text Data source references**

43   1   Wang, F. et al. Grazing greatly reduces the temporal stability of soil cellulolytic fungal
44   community in a steppe on the Tibetan Plateau. Journal of Environmental Sciences 121, 48-57
45   (2022).

46   2   Wang, L. et al. Changes in litter input exert divergent effects on the soil microbial community
47   and function in stands of different densities. Science of the Total Environment 845, 157297
48   (2022).

49   3   Wang, W. et al. Biocrust as a nature-based strategy (NbS) to restore the functionality of
50   degraded soils in semiarid rainfed alfalfa (Medicago sativa L.) field. Journal of Cleaner
51   Production 336, 130378 (2022).

52   4   Wang, Z. et al. Correlative distribution of DOM and heavy metals in the soils of the Zhangxi
53   watershed in Ningbo city, East of China. Environmental Pollution 299, 118811 (2022).

54   5   Yang, J. et al. The effects of plastic film mulching and straw mulching on licorice root yield and
55   soil organic carbon content in a dryland farming. Science of The Total Environment 826, 154113
56   (2022).

57   6   Yu, S. et al. Delayed wet season increases soil net N mineralization in a seasonally dry tropical
58   forest. Science of The Total Environment 823, 153314 (2022).

59   7   Wu, D. et al. Molecular linkages between chemodiversity and MCPA complexation behavior of
60   dissolved organic matter in paddy soil: Effects of land conversion. Environmental Pollution 311,
61   119949 (2022).

62   8   Zhang, D. et al. Dissimilar evolution of soil dissolved organic matter chemical properties during
63   revegetation with arbor and shrub in desertified land of the Mu Us Desert. Science of The Total
64   Environment 815, 152904 (2022).

65   9   Zhang, H. et al. Land-use-driven change in soil labile carbon affects microbial community
66   composition and function. Geoderma 426, 116056 (2022).

67   10   Zhang, Y., Huang, X., Zhang, Z., Blewett, J. & Naafs, B. D. A. Spatiotemporal dynamics of
68   dissolved organic carbon in a subtropical wetland and their implications for methane emissions.
69   Geoderma 419, 115876 (2022).

70   11   Straathof, A. L., Chincarini, R., Comans, R. N. & Hoffland, E. Dynamics of soil dissolved
71   organic carbon pools reveal both hydrophobic and hydrophilic compounds sustain microbial
72   respiration. Soil Biology and Biochemistry 79, 109-116 (2014).

73   12   Ghani, A., Dexter, M., Carran, R. & Theobald, P. Dissolved organic nitrogen and carbon in
74   pastoral soils: the New Zealand experience. European Journal of Soil Science 58, 832-843
75   (2007).

76   13   Curtin, D., Beare, M. H., Chantigny, M. H. & Greenfield, L. G. Controls on the extractability of
77   soil organic matter in water over the 20 to 80 C temperature range. Soil Science Society of
78   America Journal 75, 1423-1430 (2011).

79   14   Cook, B. D. & Allan, D. L. Dissolved organic carbon in old field soils: total amounts as a
80   measure of available resources for soil mineralization. Soil Biology and Biochemistry 24,
81   585-594 (1992).

82   15   Neff, J. C. & Hooper, D. U. Vegetation and climate controls on potential CO_2, DOC and DON
83   production in northern latitude soils. Global Change Biology 8, 872-884 (2002).

84   16   Lundquist, E. J., Jackson, L. & Scow, K. Wet–dry cycles affect dissolved organic carbon in two
85   California agricultural soils. Soil Biology and Biochemistry 31, 1031-1038 (1999).

86
87
17   Dou, F., Wright, A. L. & Hons, F. M. Sensitivity of labile soil organic carbon to tillage in wheat-based cropping systems. Soil Science Society of America Journal 72, 1445-1453 (2008).

88
89
90
18   Liu, Z., Clay, S. A., Clay, D. E. & Harper, S. S. Ammonia fertilizer influences atrazine adsorption-desorption characteristics. Journal of Agricultural and Food Chemistry 43, 815-819 (1995).

91
92
93
19   Michaelson, G., Ping, C., Kling, G. & Hobbie, J. The character and bioactivity of dissolved organic matter at thaw and in the spring runoff waters of the arctic tundra north slope, Alaska. Journal of Geophysical Research: Atmospheres 103, 28939-28946 (1998).

94
95
96
20   Amador, J. A., Görres, J. H. & Savin, M. C. Carbon and nitrogen dynamics in Lumbricus terrestris (L.) burrow soil: relationship to plant residues and macropores. Soil Science Society of America Journal 67, 1755-1762 (2003).

97
98
99
21   Chang, C. H. et al. Effects of simulated warming on soil DOC and DON concentrations in the alpine forest of western Sichuan based on altitudinal gradient experiment. Ying Yong Sheng tai xue bao= The Journal of Applied Ecology 27, 663-671 (2016).

100
101
22   Lan, J. et al. Dissolution rate under soil in karst areas and the influencing factors of different land use patterns. Acta Ecologica Sinica 33, 3205-3212 (2013).

102
103
23   Zhong, X.-l. et al. Physical protection by soil aggregates stabilizes soil organic carbon under simulated N deposition in a subtropical forest of China. Geoderma 285, 323-332 (2017).

104
105
106
24   Liu, D., Song, C., Wang, L., Wang, L. & Li, Y. Exogenous nitrogen enrichment impact on the carbon mineralization and DOC of the freshwater marsh soil. Huan Jing ke Xue= Huanjing Kexue 29, 3525-3530 (2008).

107
108
109
25   WANG, Q.-k., WANG, S.-l., YU, X.-j., ZHANG, J. & LIU, Y.-x. Soil carbon mineralization potential and its effect on soil active organic carbon in evergreen broadleaved forest and Chinese fir plantation. Chinese Journal of Ecology 26, 1918 (2007).

110
111
112
26   Qi, Y.-C. et al. Reponses of soil total organic carbon and dissolved organic carbon to simulated nitrogen deposition in temperate typical steppe in Inner Mongolia, China. Huan Jing ke Xue= Huanjing Kexue 35, 3073-3082 (2014).

113
114
27   Wu, H. et al. Accumulation of nitrate and dissolved organic nitrogen at depth in a red soil Critical Zone. Geoderma 337, 1175-1185 (2019).

115
116
117
28   Xi, M. et al. Assessment of the content, structure, and source of soil dissolved organic matter in the coastal wetlands of Jiaozhou Bay, China. Physics and Chemistry of the Earth, Parts A/b/c 103, 35-44 (2018).

118
119
29   Xiao-yan, Y. et al. Effects of extraction conditions on topsoil dissolved organic carbon concentration of black soil. Journal of Beijing Forestry University 35, 68-72 (2013).

120
121
122
30   Zhou, Z. et al. Changes in soil physicochemical properties and bacterial communities among different soil depths after long-term straw mulching under a no-till system. SOIL Discussions 2021, 1-33 (2021).

123
124
31   Zhang, J. et al. Different responses of soil respiration and its components to nitrogen and phosphorus addition in a subtropical secondary forest. Forest Ecosystems 8, 1-13 (2021).

125
126
32   Sun, X. et al. Organic mulching promotes soil organic carbon accumulation to deep soil layer in an urban plantation forest. Forest Ecosystems 8, 1-11 (2021).

127
128
129
33   Li, W.-y., Guo, Z., Li, J. & Han, J.-c. Effects of different proportions of soft rock additions on organic carbon pool and bacterial community structure of sandy soil. Scientific Reports 11, 4624 (2021).

130 34   Ghosh, M. et al. Short-term carbon sequestration and changes of soil organic carbon pools in
131   rice under integrated nutrient management in India. Agriculture 11, 348 (2021).
132 35   Che, Q., Li, M. & Zhang, Z. Effects of biochar application on soil organic carbon in degraded
133   saline-sodic wetlands of Songnen Plain, Northeast China. Chinese Geographical Science 31,
134   877-887 (2021).
135 36   Anning, D. K. et al. Divergent Accumulation of Microbial Residues and Amino Sugars in Loess
136   Soil after Six Years of Different Inorganic Nitrogen Enrichment Scenarios. Applied Sciences 11,
137   5788 (2021).
138 37   Zhang, L. et al. Soil labile organic carbon fractions and soil enzyme activities after 10 years of
139   continuous fertilization and wheat residue incorporation. Scientific Reports 10, 11318 (2020).
140 38   Walkiewicz, A., Brzezińska, M., Bieganowski, A., Sas-Paszt, L. & Frąc, M. Early response of
141   soil microbial biomass and activity to biofertilizer application in degraded brunic arenosol and
142   abruptic luvisol of contrasting textures. Agronomy 10, 1347 (2020).
143 39   Li, P. et al. Effects of straw and its biochar applications on the abundance and community
144   structure of CO 2-fixing bacteria in a sandy agricultural soil. Journal of soils and sediments 20,
145   2225-2235 (2020).
146 40   Han, Y. et al. Effects of straw-return method for the maize–rice rotation system on soil
147   properties and crop yields. Agronomy 10, 461 (2020).
148 41   Fan, W. & Wu, J. Short-term effects of returning granulated straw on soil microbial community
149   and organic carbon fractions in dryland farming. Journal of Microbiology 58, 657-667 (2020).
150 42   Fan, D. et al. Nitrogen deep placement mitigates methane emissions by regulating methanogens
151   and methanotrophs in no-tillage paddy fields. Biology and fertility of soils 56, 711-727 (2020).
152 43   Abd El-Azeim, M., Sherif, M., Hussien, M. & Haddad, S. Temporal impacts of different
153   fertilization systems on soil health under arid conditions of potato monocropping. Journal of
154   Soil Science and Plant Nutrition 20, 322-334 (2020).
155 44   Zhou, Z. et al. Long-term straw mulch effects on crop yields and soil organic carbon fractions at
156   different depths under a no-till system on the Chengdu Plain, China. Journal of soils and
157   sediments 19, 2143-2152 (2019).
158 45   Yang, S., Sun, X., Ding, J., Jiang, Z. & Xu, J. Effects of biochar addition on the NEE and soil
159   organic carbon content of paddy fields under water-saving irrigation. Environmental Science
160   and Pollution Research 26, 8303-8311 (2019).
161 46   Karimi, A., Moezzi, A., Chorom, M. & Enayatizamir, N. Chemical fractions and availability of
162   Zn in a calcareous soil in response to biochar amendments. Journal of Soil Science and Plant
163   Nutrition 19, 851-864 (2019).
164 47   Irfan, M. et al. Response of soil microbial biomass and enzymatic activity to biochar
165   amendment in the organic carbon deficient arid soil: a 2-year field study. Arabian Journal of
166   Geosciences 12, 1-9 (2019).
167 48   Azeem, M. et al. Effects of biochar and NPK on soil microbial biomass and enzyme activity
168   during 2 years of application in the arid region. Arabian Journal of Geosciences 12, 1-13 (2019).
169 49   Yang, X. et al. Labile organic carbon fractions and carbon pool management index in a 3-year
170   field study with biochar amendment. Journal of soils and sediments 18, 1569-1578 (2018).
171 50   Li, J. et al. Response of soil organic carbon fractions, microbial community composition and
172   carbon mineralization to high-input fertilizer practices under an intensive agricultural system.
173   PLoS One 13, e0195144 (2018).

174 51 Chen, Z., Wang, Q., Wang, H., Bao, L. & Zhou, J. Crop yields and soil organic carbon fractions
175 as influenced by straw incorporation in a rice–wheat cropping system in southeastern China.
176 Nutrient Cycling in Agroecosystems 112, 61-73 (2018).

177 52 Párraga-Aguado, I., Alcoba-Gómez, P. & Conesa, H. M. Suitability of a municipal solid waste as
178 organic amendment for agricultural and metal (loid)-contaminated soils: effects on soil
179 properties, plant growth and metal (loid) allocation in Zea mays L. Journal of Soils and
180 Sediments 17, 2469-2480 (2017).

181 53 Liu, M. et al. Improved nutrient status affects soil microbial biomass, respiration, and functional
182 diversity in a Lei bamboo plantation under intensive management. Journal of Soils and
183 Sediments 17, 917-926 (2017).

184 54 Liu, H. et al. Responses of soil methanogens, methanotrophs, and methane fluxes to land-use
185 conversion and fertilization in a hilly red soil region of southern China. Environmental Science
186 and Pollution Research 24, 8731-8743 (2017).

187 55 Gebhardt, M., Fehmi, J. S., Rasmussen, C. & Gallery, R. E. Soil amendments alter plant
188 biomass and soil microbial activity in a semi-desert grassland. Plant and soil 419, 53-70 (2017).

189 56 Zou, H. et al. Effects of straw return in deep soils with urea addition on the soil organic carbon
190 fractions in a semi-arid temperate cornfield. PloS one 11, e0153214 (2016).

191 57 Zhang, L. et al. Changes in soil carbon and enzyme activity as a result of different long-term
192 fertilization regimes in a greenhouse field. PloS one 10, e0118371 (2015).

193 58 Wang, Y. et al. 23-year manure and fertilizer application increases soil organic carbon
194 sequestration of a rice–barley cropping system. Biology and Fertility of Soils 51, 583-591
195 (2015).

196 59 An, T. et al. Dynamics and distribution of 13 C-labeled straw carbon by microorganisms as
197 affected by soil fertility levels in the Black Soil region of Northeast China. Biology and Fertility
198 of Soils 51, 605-613 (2015).

199 60 Zhu, L., Hu, N., Yang, M., Zhan, X. & Zhang, Z. Effects of different tillage and straw return on
200 soil organic carbon in a rice-wheat rotation system. PLOS one 9, e88900 (2014).

201 61 Tian, J., Lu, S., Fan, M., Li, X. & Kuzyakov, Y. Integrated management systems and N
202 fertilization: effect on soil organic matter in rice-rapeseed rotation. Plant and soil 372, 53-63
203 (2013).

204 62 Liu, B. et al. 14 year applications of chemical fertilizers and crop straw effects on soil labile
205 organic carbon fractions, enzyme activities and microbial community in rice-wheat rotation of
206 middle China. Science of the Total Environment 841, 156608 (2022).

207 63 Liu, E., Yan, C., Mei, X., Zhang, Y. & Fan, T. Long-term effect of manure and fertilizer on soil
208 organic carbon pools in dryland farming in northwest China. Plos one 8, e56536 (2013).

209 64 Lin, S. et al. Nitrous oxide emissions from yellow brown soil as affected by incorporation of
210 crop residues with different carbon-to-nitrogen ratios: a case study in central China. Archives of
211 environmental contamination and toxicology 65, 183-192 (2013).

212 65 Liang, Q. et al. Effects of 15 years of manure and inorganic fertilizers on soil organic carbon
213 fractions in a wheat-maize system in the North China Plain. Nutrient Cycling in Agroecosystems
214 92, 21-33 (2012).

215 66 Zhu, H., Gong, L., Ding, Z. & Li, Y. Effects of litter and root manipulations on soil carbon and
216 nitrogen in a Schrenk's spruce (Picea schrenkiana) forest. PLoS One 16, e0247725 (2021).

217 67 Xiao, Q. et al. Long-term manuring increases microbial carbon use efficiency and mitigates

218   priming effect via alleviated soil acidification and resource limitation. Biology and Fertility of
219   Soils 57, 925-934 (2021).

220   68   Wang, D. et al. Nitrogen fertilization overweighs intercropping in promotion of dissolved
221   organic carbon concentration and complexity in potato-cropped soil. Plant and Soil 462,
222   273-284 (2021).

223   69   Chen, Q. et al. Quantitative and Qualitative Responses of Soil Water-Extractable Organic Matter
224   to Carbon and Nitrogen Management Practices in Loess Soil. Agronomy 11, 2025 (2021).

225   70   Bizimana, F. et al. Effects of long-term nitrogen fertilization on N 2 O, N 2 and their
226   yield-scaled emissions in a temperate semi-arid agro-ecosystem. Journal of Soils and Sediments
227   21, 1659-1671 (2021).

228   71   Tang, H. et al. Short-term responses of soil organic carbon and its labile fractions to different
229   manure Nitrogen input in a double-cropping rice field. The Journal of Agricultural Science 158,
230   119-127 (2020).

231   72   Song, D. et al. Effects of straw mulching practices on soil nematode communities under walnut
232   plantation. Scientific Reports 10, 15351 (2020).

233   73   Liu, X., Feng, Z., Zhou, Y., Zhu, H. & Yao, Q. Plant Species-Dependent Effects of Liming and
234   Plant Residue Incorporation on Soil Bacterial Community and Activity in an Acidic Orchard
235   Soil. Applied Sciences 10, 5681 (2020).

236   74   Liu, J. et al. Variation of soil dissolved organic carbon under long-term different fertilizations
237   and its correlation with maize yields. Journal of Soils and Sediments 20, 2761-2770 (2020).

238   75   Li, Z. et al. Green manure incorporation with reductions in chemical fertilizer inputs improves
239   rice yield and soil organic matter accumulation. Journal of Soils and Sediments 20, 2784-2793
240   (2020).

241   76   Bah, H., Ren, X., Wang, Y., Tang, J. & Zhu, B. Characterizing greenhouse gas emissions and
242   global warming potential of wheat-maize cropping systems in response to organic amendments
243   in eutric regosols, China. Atmosphere 11, 614 (2020).

244   77   Mohamed, W. S. & Hammam, A. A. Poultry manure-derived biochar as a soil amendment and
245   fertilizer for sandy soils under arid conditions. Egyptian Journal of Soil Science 59, 1-14 (2019).

246   78   Liu, Y. et al. Effects of water and organic manure coupling on the immobilization of cadmium
247   by sepiolite. Journal of soils and sediments 19, 798-808 (2019).

248   79   Kim, S. U. et al. Nitrous oxide emission from upland soil amended with different animal
249   manures. Applied biological chemistry 62, 1-8 (2019).

250   80   Chen, T. et al. Seasonal variations in N 2 and N 2 O emissions from a wheat–maize cropping
251   system. Biology and fertility of soils 55, 539-551 (2019).

252   81   Peng, C., Hong-Yan, W., Zheng, R.-L., Zhang, B. & Guo-Xin, S. Long-term effects of biochar
253   on rice production and stabilisation of cadmium and arsenic levels in contaminated paddy soils.
254   Earth and Environmental Science Transactions of The Royal Society of Edinburgh 109, 415-420
255   (2018).

256   82   Xu, P. et al. Structure and biodegradability of dissolved organic matter from Ultisol treated with
257   long-term fertilizations. Journal of soils and sediments 18, 1865-1872 (2018).

258   83   Xiao, Y. et al. Effect of biochar amendment on methane emissions from paddy field under
259   water-saving irrigation. Sustainability 10, 1371 (2018).

260   84   Liu, Z., Nan, Z., Zhao, C. & Yang, Y. Potato absorption and phytoavailability of Cd, Ni, Cu, Zn
261   and Pb in sierozem soils amended with municipal sludge compost. Journal of Arid Land 10,

262   638-652 (2018).

263   85   Conti, L. D. et al. Aluminum species and activity in sandy soil solution with pig slurry addition.
264   Pesquisa Agropecuária Brasileira 52, 914-922 (2017).

265   86   Chen, A. et al. Rapid decrease of soil carbon after abandonment of subtropical paddy fields.
266   Plant and Soil 415, 203-214 (2017).

267   87   Antonangelo, J. A., Ferrari, J., Crusciol, C. A. C. & Alleoni, L. R. F. Lime and
268   calcium-magnesium silicate in the ionic speciation of an Oxisol. Scientia Agricola 74, 317-333
269   (2017).

270   88   Zhao, B., Zhang, J., Yu, Y., Karlen, D. L. & Hao, X. Crop residue management and fertilization
271   effects on soil organic matter and associated biological properties. Environmental Science and
272   Pollution Research 23, 17581-17591 (2016).

273   89   Wang, X.-g., Li, C.-s., Luo, Y., Hua, K.-k. & Zhou, M.-h. The impact of nitrogen amendment
274   and crop growth on dissolved organic carbon in soil solution. Journal of Mountain Science 13,
275   95-103 (2016).

276   90   Wang, X., Tang, C., Baldock, J., Butterly, C. & Gazey, C. Long-term effect of lime application
277   on the chemical composition of soil organic carbon in acid soils varying in texture and liming
278   history. Biology and Fertility of Soils 52, 295-306 (2016).

279   91   Strid, A., Lee, B. S. & Lajtha, K. Homogenization of detrital leachate in an old-growth
280   coniferous forest, OR: DOC fluorescence signatures in soils undergoing long-term litter
281   manipulations. Plant and Soil 408, 133-148 (2016).

282   92   Sánchez-García, M. et al. Compost vs biochar amendment: a two-year field study evaluating soil
283   C build-up and N dynamics in an organically managed olive crop. Plant and Soil 408, 1-14
284   (2016).

285   93   Liu, H. et al. Effects of land use conversion and fertilization on CH 4 and N 2 O fluxes from
286   typical hilly red soil. Environmental Science and Pollution Research 23, 20269-20280 (2016).

287   94   Liu, C. et al. Biochar increased water holding capacity but accelerated organic carbon leaching
288   from a sloping farmland soil in China. Environmental Science and Pollution Research 23,
289   995-1006 (2016).

290   95   Gu, C. et al. Dynamic changes of soil surface organic carbon under different mulching practices
291   in citrus orchards on sloping land. PloS one 11, e0168384 (2016).

292   96   Shang, F., Ren, S., Yang, P., Li, C. & Ma, N. Effects of different fertilizer and irrigation water
293   types, and dissolved organic matter on soil C and N mineralization in crop rotation farmland.
294   Water, Air, & Soil Pollution 226, 1-25 (2015).

295   97   Xie, B. et al. N2O emissions from an apple orchard in the coastal area of Bohai Bay, China. The
296   Scientific World Journal 2014, 164732 (2014).

297   98   Kim, S. Y., Pramanik, P., Bodelier, P. L. & Kim, P. J. Cattle manure enhances methanogens
298   diversity and methane emissions compared to swine manure under rice paddy. PLoS One 9,
299   e113593 (2014).

300   99   Blair, R. M., Savin, M. C. & Chen, P. Composted and formulated poultry litters promote soil
301   nutrient availability but not plant uptake or edamame quality. Agronomy for sustainable
302   development 34, 849-856 (2014).

303   100   Bajgai, Y., Kristiansen, P., Hulugalle, N. & McHenry, M. Changes in soil carbon fractions due to
304   incorporating corn residues in organic and conventional vegetable farming systems. Soil
305   research 52, 244-252 (2014).

306 101 Lee, C. H. et al. Different response of silicate fertilizer having electron acceptors on methane
307   emission in rice paddy soil under green manuring. Biology and Fertility of Soils 48, 435-442
308   (2012).
309 102 Zambrosi, F. C. B., Alleoni, L. R. F. & Caires, E. F. Liming and ionic speciation of an Oxisol
310   under no-till system. Scientia Agricola 65, 190-203 (2008).
311 103 Kalbitz, K., Meyer, A., Yang, R. & Gerstberger, P. Response of dissolved organic matter in the
312   forest floor to long-term manipulation of litter and throughfall inputs. Biogeochemistry 86,
313   301-318 (2007).
314 104 Shand, C. & Coutts, G. The effects of sheep faeces on soil solution composition. Plant and Soil
315   285, 135-148 (2006).
316 105 Yano, Y., Lajtha, K., Sollins, P. & Caldwell, B. A. Chemistry and dynamics of dissolved organic
317   matter in a temperate coniferous forest on andic soils: effects of litter quality. Ecosystems 8,
318   286-300 (2005).
319 106 Lajtha, K. et al. Detrital controls on soil solution N and dissolved organic matter in soils: a field
320   experiment. Biogeochemistry 76, 261-281 (2005).
321 107 Park, J.-H. & Matzner, E. Controls on the release of dissolved organic carbon and nitrogen from
322   a deciduous forest floor investigated by manipulations of aboveground litter inputs and water
323   flux. Biogeochemistry 66, 265-286 (2003).
324 108 Yavitt, J. B. & Fahey, T. J. Peat and solution chemistry responses to CaCO 3 application in
325   wetlands next to Woods Lake, New York. Experimental Watershed Liming Study, 103-121
326   (1996).
327 109 Geary, R. J. & Driscoll, C. T. Forest soil solutions: acid/base chemistry and response to calcite
328   treatment. Experimental Watershed Liming Study, 53-78 (1996).
329 110 Smolander, A., Kitunen, V., Priha, O. & Mälkönen, E. Nitrogen transformations in limed and
330   nitrogen fertilized soil in Norway spruce stands. Plant and Soil 172, 107-115 (1995).
331 111 Kreutzer, K. in Nutrient Uptake and Cycling in Forest Ecosystems: Proceedings of the
332   CEC/IUFRO Symposium Nutrient Uptake and Cycling in Forest Ecosystems Halmstad, Sweden,
333   June, 7–10, 1993. 447-470 (Springer).
334 112 ULLAH, B. Soil Nitrous Oxide Emission as Affected by Application of Phosphorus, 华中农业
335   大学, (2016).
336 113 Hung, C.-Y., Ejack, L. & Whalen, J. K. Fall-applied manure with cover crop did not increase
337   nitrous oxide emissions during spring freeze-thaw periods. Applied Soil Ecology 158, 103786
338   (2021).
339 114 Munera-Echeverri, J. L., Martinsen, V., Strand, L. T., Cornelissen, G. & Mulder, J. Effect of
340   conservation farming and biochar addition on soil organic carbon quality, nitrogen
341   mineralization, and crop productivity in a light textured Acrisol in the sub-humid tropics. PloS
342   one 15, e0228717 (2020).
343 115 Akley, K. E. Impacts of cropping systems on soil health and microbial ecology, Kansas State
344   University, (2015).
345 116 Omari, R. A. et al. Influence of organic inputs with mineral fertilizer on maize yield and soil
346   microbial biomass dynamics in different seasons in a tropical acrisol. Environmental
347   Sustainability 3, 45-57 (2020).
348 117 Ansong Omari, R. et al. Nitrogen mineralization and microbial biomass dynamics in different
349   tropical soils amended with contrasting organic resources. Soil Systems 2, 63 (2018).

350   118   Zhang, Y. et al. Long-Term Fertilization Alters the Chemical Composition of Dissolved Organic
351   Carbon via Regulating Soil Physicochemical Factors.   (2021).
352   119   Ohno, T., Griffin, T. S., Liebman, M. & Porter, G. A. Chemical characterization of soil
353   phosphorus and organic matter in different cropping systems in Maine, USA. Agriculture,
354   ecosystems & environment 105, 625-634 (2005).
355   120   Gao, J., Liu, L., Shi, Z. & Lv, J. Characteristics of Fluorescent Dissolved Organic Matter in
356   Paddy Soil Amended With Crop Residues After Column (0–40 cm) Leaching. Frontiers in
357   Environmental Science 10, 766795 (2022).
358   121   Zheng, H. et al. Field-aged biochar enhances soil organic carbon by increasing recalcitrant
359   organic carbon fractions and making microbial communities more conducive to carbon
360   sequestration. Agriculture, Ecosystems & Environment 340, 108177 (2022).
361   122   Sun, X., Liu, J., Liu, S. & Gao, W. Soil organic carbon fractions comparison after 40-year
362   long-term fertilisation in a wheat-corn rotation field. Soil & Water Research 17 (2022).
363   123   Xu, Y. et al. Dissolved N and C leaching losses mitigated by optimized fertilization management
364   in intensive greenhouse system: insights from DOM characteristics via EEM-PARAFAC.
365   Journal of Soils and Sediments 23, 657-671 (2023).
366   124   Ma, F. et al. Impacts of elevated atmospheric CO2 and N fertilization on N2O emissions and
367   dynamics of associated soil labile C components and mineral N in a maize field in the North
368   China plain. Agronomy 12, 432 (2022).
369   125   Zhang, Z. et al. Cover crops and N fertilization affect soil ammonia volatilization and N2O
370   emission by regulating the soil labile carbon and nitrogen fractions. Agriculture, Ecosystems &
371   Environment 340, 108188 (2022).
372   126   Wang, X., Jian, S., Gamage, L. & Li, J. Effect of nitrogen fertilization on central tendency and
373   spatial heterogeneity of soil moisture, pH and dissolved organic carbon and nitrogen in two
374   bioenergy croplands#. Journal of Plant Nutrition and Soil Science 185, 355-369 (2022).
375   127   Wang, D. et al. Compost amendment maintains soil structure and carbon storage by increasing
376   available carbon and microbial biomass in agricultural soil–A six-year field study. Geoderma
377   427, 116117 (2022).
378   128   Chen, K. et al. Biochar-induced changes in the soil diazotroph community abundance and
379   structure in a peanut field trial. Biochar 4, 26 (2022).
380   129   Wang, C., Du, S. & Nishimura, O. Rice rusk-derived biochar suppressed N2O emission from
381   acidic arable soil by inhibiting nitrate reduction. Journal of Soil Science and Plant Nutrition 22,
382   3189-3199 (2022).
383   130   Xu, P. et al. Prior nitrogen fertilization stimulated N 2 O emission from rice cultivation season
384   under a rapeseed-rice production system. Plant and Soil, 1-12 (2022).
385   131   Yang, Y., Liu, H. & Lv, J. Response of N2O emission and denitrification genes to different
386   inorganic and organic amendments. Scientific Reports 12, 3940 (2022).
387   132   Fan, D., Cao, C. & Li, C. Integrated organic-inorganic nitrogen fertilization mitigates nitrous
388   oxide emissions by regulating ammonia-oxidizing bacteria in purple caitai fields. Agriculture 12,
389   723 (2022).
390   133   Maslov, M., Astaykina, A. & Pozdnyakov, L. Earthworm Lumbricus terrestris contributes
391   nitrous oxide emission from temperate agricultural soil regardless of applied mineral nitrogen
392   fertilizer doses. Agronomy 12, 2745 (2022).
393   134   Xu, Y. et al. Long-term successive biochar amendments Alter the composition and α-diversity of

bacterial Community of Paddy Soil in Rice-wheat rotation. Frontiers in Environmental Science 10, 921766 (2022).

135   Huang, R. et al. Biochar Application Increases Labile Carbon and Inorganic Nitrogen Supply in a Continuous Monocropping Soil. Land 11, 473 (2022).

136   Lin, H. et al. How do soil organic carbon pool, stock and their stability respond to crop residue incorporation in subtropical calcareous agricultural soils? Agriculture, Ecosystems & Environment 332, 107927 (2022).

137   Gu, Y.-J., Han, C.-L., Kong, M., Siddique, K. H. & Li, F.-M. Film Mulching with Low Phosphorus Application Improves Soil Organic Carbon and Its Decomposability in a Semiarid Agroecosystem. Agriculture 12, 816 (2022).

138   Al-Graiti, T. et al. The composition of dissolved organic matter in arable lands: does soil management practice matter? Agronomy 12, 2797 (2022).

139   Xu, P. et al. Methane emission from rice cultivation regulated by soil hydrothermal condition and available carbon and nitrogen under a rice–wheat rotation system. Plant and Soil 480, 283-294 (2022).

140   Bal k, J. et al. The impact of the long-term application of mineral nitrogen and sewage sludge fertilizers on the quality of soil organic matter. Chemical and Biological Technologies in Agriculture 9, 86 (2022).

141   Cao, B. et al. Long-term nitrogen and straw application improves wheat production and soil organic carbon sequestration. Journal of Soil Science and Plant Nutrition 22, 3364-3376 (2022).

142   Bai, J. et al. Effects of sewage sludge application on plant growth and soil characteristics at a Pinus sylvestris var. mongolica plantation in Horqin sandy land. Forests 13, 984 (2022).

143   Ji, C. et al. Reductive soil disinfestation with biochar amendment modified microbial community composition in soils under plastic greenhouse vegetable production. Soil and Tillage Research 218, 105323 (2022).

144   Abagandura, G. O. et al. Soil labile carbon and nitrogen fractions after eleven years of manure and mineral fertilizer applications. Archives of Agronomy and Soil Science 69, 875-890 (2023).

145   Chen, K. et al. Effects of applying maize stover on soil diazotroph community diminish with depth. Applied Soil Ecology 179, 104573 (2022).

146   Chen, M. et al. Effects of organic fertilization on phosphorus availability and crop growth: Evidence from a 7-year fertilization experiment. Archives of Agronomy and Soil Science 69, 2092-2103 (2023).

147   Du, L. et al. Fertilization regime shifts the molecular diversity and chlorine reactivity of soil dissolved organic matter from tropical croplands. Water Research 225, 119106 (2022).

148   Jiang, N. et al. Effects of straw and biochar amendment on hydrological fluxes of dissolved organic carbon in a subtropical montane agricultural landscape. Environmental Pollution 296, 118751 (2022).

149   Jiang, S. et al. Field-scale fluorescence fingerprints of biochar-derived dissolved organic matter (DOM) provide an effective way to trace biochar migration and the downward co-migration of Pb, Cu and As in soil. Chemosphere 301, 134738 (2022).

150   Li, K. et al. Unveiling the role of dissolved organic matter on phosphorus sorption and availability in a 5-year manure amended paddy soil. Science of the Total Environment 838, 155892 (2022).

151   Li, Y. et al. Biochar incorporation increases winter wheat (Triticum aestivum L.) production

438   with significantly improving soil enzyme activities at jointing stage. Catena 211, 105979 (2022).

439   152   Lin, S. et al. Combined slag and biochar amendments to subtropical paddy soils lead to a
440   short-term change of bacteria community structure and rise of soil organic carbon. Applied Soil
441   Ecology 179, 104593 (2022).

442   153   Liu, X. et al. Effects of nitrogen-enriched biochar on subtropical paddy soil organic carbon pool
443   dynamics. Science of The Total Environment 851, 158322 (2022).

444   154   Rombolà A. G. et al. Effect of biochar amendment on organic matter and dissolved organic
445   matter composition of agricultural soils from a two-year field experiment. Science of The Total
446   Environment 812, 151422 (2022).

447   155   Wang, H. et al. Variation in Soil Denitrification among Fertilization Regimes and Its Microbial
448   Mechanism. Geomicrobiology Journal 39, 722-730 (2022).

449   156   Issah, G., Schoenau, J. & Knight, J. Landscape position, sampling time, and tillage, but not
450   legume species, affect labile carbon and nitrogen fractions in a 4-yr-old rejuvenated grazed
451   pasture. Canadian Journal of Soil Science 101, 641-653 (2021).

452   157   Kobierski, M., Lemanowicz, J., Wojewódzki, P. & Kondratowicz-Maciejewska, K. The effect of
453   organic and conventional farming systems with different tillage on soil properties and enzymatic
454   activity. Agronomy 10, 1809 (2020).

455   158   Chen, J., Zhu, R., Zhang, Q., Kong, X. & Sun, D. Reduced-tillage management enhances soil
456   properties and crop yields in a alfalfa-corn rotation: Case study of the Songnen Plain, China.
457   Scientific Reports 9, 17064 (2019).

458   159   Ghimire, R., Norton, J. B., Stahl, P. D. & Norton, U. Soil microbial substrate properties and
459   microbial community responses under irrigated organic and reduced-tillage crop and forage
460   production systems. PloS one 9, e103901 (2014).

461   160   Dong, W., Hu, C., Chen, S. & Zhang, Y. Tillage and residue management effects on soil carbon
462   and CO_2 emission in a wheat–corn double-cropping system. Nutrient Cycling in
463   Agroecosystems 83, 27-37 (2009).

464   161   Virk, A. L. et al. Effects of diversified cropping sequences and tillage practices on soil organic
465   carbon, nitrogen, and associated fractions in the North China Plain. Journal of Soil Science and
466   Plant Nutrition 21, 1201-1212 (2021).

467   162   Qiu, Q. et al. Variability and controls of soil CO_2 fluxes under different tillage and crop residue
468   managements in a wheat-maize double-cropping system. Environmental Science and Pollution
469   Research 27, 45722-45736 (2020).

470   163   Debska, B., Jaskulska, I. & Jaskulski, D. Method of tillage with the factor determining the
471   quality of organic matter. Agronomy 10, 1250 (2020).

472   164   Rieder, Á. et al. Soil organic matter alteration velocity due to land-use change: A case study
473   under conservation agriculture. Sustainability 10, 943 (2018).

474   165   Sun, B., Hallett, P. D., Caul, S., Daniell, T. J. & Hopkins, D. W. Distribution of soil carbon and
475   microbial biomass in arable soils under different tillage regimes. Plant and Soil 338, 17-25
476   (2011).

477   166   Elmi, A. A., Madramootoo, C., Hamel, C. & Liu, A. Denitrification and nitrous oxide to nitrous
478   oxide plus dinitrogen ratios in the soil profile under three tillage systems. Biology and Fertility
479   of Soils 38, 340-348 (2003).

480   167   Tang, H. et al. Impacts of short-term tillage and crop residue incorporation managements on soil
481   microbial community in a double-cropping rice field. Scientific Reports 12, 2093 (2022).

482   168   Mchunu, C. N., Lorentz, S., Jewitt, G., Manson, A. & Chaplot, V. No-till impact on soil and soil
483   organic carbon erosion under crop residue scarcity in Africa. Soil Science Society of America
484   Journal 75, 1503-1512 (2011).
485   169   Mubekaphi, C. Soil organic carbon, glomalin related soil protein and related physical properties
486   after 15 years of different management practices in a subtropical region of South Africa, (2019).
487   170   Rahmati, M. et al. Changes in soil organic carbon fractions and residence time five years after
488   implementing conventional and conservation tillage practices. Soil and Tillage Research 200,
489   104632 (2020).
490   171   Hao, Q., Cheng, B. & Jiang, C. Long-term tillage effects on soil organic carbon and dissolved
491   organic carbon in a purple paddy soil of Southwest China. Acta Ecologica Sinica 33, 260-265
492   (2013).
493   172   Si, P. et al. Effect of no-tillage with straw mulch and conventional tillage on soil organic carbon
494   pools in Northern China. Archives of Agronomy and Soil Science 64, 398-408 (2018).
495   173   Hurisso, T. T., Norton, J. B. & Norton, U. Soil profile carbon and nitrogen in prairie, perennial
496   grass–legume mixture and wheat-fallow production in the central High Plains, USA. Agriculture,
497   ecosystems & environment 181, 179-187 (2013).
498   174   Carrillo-Gonzalez, R., Gonzalez-Chavez, M., Aitkenhead-Peterson, J., Hons, F. & Loeppert, R.
499   Extractable DOC and DON from a dry-land long-term rotation and cropping system in Texas,
500   USA. Geoderma 197, 79-86 (2013).
501   175   Gao, Y. et al. Effect of tillage practices on soil CO2 emissions, microbial C-fixation, and
502   C-degradation functional gene abundance in Northeast China. Journal of Soils and Sediments 23,
503   446-458 (2023).
504   176   Jia, L. et al. Keystone microbiome in the rhizosphere soil reveals the effect of long-term
505   conservation tillage on crop growth in the Chinese Loess Plateau. Plant and Soil 473, 457-472
506   (2022).
507   177   Fisk, L., Barton, L., Maccarone, L., Jenkins, S. & Murphy, D. Seasonal dynamics of
508   ammonia-oxidizing bacteria but not archaea influence soil nitrogen cycling in a semi-arid
509   agricultural soil. Scientific Reports 12, 7299 (2022).
510   178   Sarker, M. R. et al. Conservation tillage and residue management improve soil health and crop
511   productivity—Evidence from a rice-maize cropping system in Bangladesh. Frontiers in
512   Environmental Science 10, 969819 (2022).
513   179   Li, N., Lei, W., Sheng, M., Long, J. & Han, Z. Straw amendment and soil tillage alter soil
514   organic carbon chemical composition and are associated with microbial community structure.
515   European Journal of Soil Biology 110, 103406 (2022).
516   180   Cui, J. et al. Nutrient availability is a dominant predictor of soil bacterial and fungal community
517   composition after nitrogen addition in subtropical acidic forests. PLoS One 16, e0246263
518   (2021).
519   181   Zhou, J. et al. Nitrogen addition affects soil respiration primarily through changes in microbial
520   community structure and biomass in a subtropical natural forest. Forests 10, 435 (2019).
521   182   Zhang, H., Liu, Y., Zhou, Z. & Zhang, Y. Inorganic nitrogen addition affects soil respiration and
522   belowground organic carbon fraction for a Pinus tabuliformis forest. Forests 10, 369 (2019).
523   183   Song, Y. et al. Short-term response of the soil microbial abundances and enzyme activities to
524   experimental warming in a boreal peatland in Northeast China. Sustainability 11, 590 (2019).
525   184   Li, Y. et al. Divergent responses of soil carbon and nitrogen pools to short-term nitrogen

526   addition between two plantations in Northeast China. International Journal of Agricultural and
527   Biological Engineering 12, 82-90 (2019).

528 185 Dong, D., Shi, C., Yan, S. & Ashraf, M. Effects of elevated atmospheric CO2, O3 and soil
529   phenanthrene on soil enzyme activities and microbial biomass. Applied Ecology and
530   Environmental Research 17, 8501-8512 (2019).

531 186 Chen, L. et al. Differential responses of net N mineralization and nitrification to throughfall
532   reduction in a Castanopsis hystrix plantation in southern China. Forest Ecosystems 6, 1-11
533   (2019).

534 187 Zhou, S., Xiang, Y., Tie, L., Han, B. & Huang, C. Simulated nitrogen deposition significantly
535   reduces soil respiration in an evergreen broadleaf forest in western China. PLoS One 13,
536   e0204661 (2018).

537 188 Yue, P. et al. Impact of elevated precipitation, nitrogen deposition and warming on soil
538   respiration in a temperate desert. Biogeosciences 15, 2007-2019 (2018).

539 189 Olatunji, O. A. et al. The responses of soil microbial community and enzyme activities of
540   Phoebe zhennan cultivated under different soil moisture conditions to phosphorus addition.
541   iForest-Biogeosciences and Forestry 11, 751 (2018).

542 190 Ma, J., Kang, F., Cheng, X. & Han, H. Response of soil organic carbon and nitrogen to nitrogen
543   deposition in a Larix principis-rupprechtii plantation. Scientific Reports 8, 8638 (2018).

544 191 Lv, F., Xue, S., Wang, G. & Zhang, C. Nitrogen addition shifts the microbial community in the
545   rhizosphere of Pinus tabuliformis in Northwestern China. PLoS One 12, e0172382 (2017).

546 192 Hu, Y. et al. Climate change affects soil labile organic carbon fractions in a Tibetan alpine
547   meadow. Journal of Soils and Sediments 17, 326-339 (2017).

548 193 van Gestel, N. C., Dhungana, N., Tissue, D. T. & Zak, J. C. Seasonal microbial and nutrient
549   responses during a 5-year reduction in the daily temperature range of soil in a Chihuahuan
550   Desert ecosystem. Oecologia 180, 265-277 (2016).

551 194 Chen, D. et al. Response of soil carbon and nitrogen to 15-year experimental warming in two
552   alpine habitats (kobresia meadow and potentilla shrubland) on the Qinghai-Tibetan Plateau.
553   Polish Journal of Environmental Studies 25, 2305-2313 (2016).

554 195 Song, Y. et al. Short-term effect of nitrogen addition on litter and soil properties in
555   Calamagrostis angustifolia freshwater marshes of Northeast China. Wetlands 33, 505-513
556   (2013).

557 196 Song, B. et al. Light and heavy fractions of soil organic matter in response to climate warming
558   and increased precipitation in a temperate steppe. PloS one 7, e33217 (2012).

559 197 Li, L.-J., Zeng, D.-H., Yu, Z.-Y., Fan, Z.-P. & Mao, R. Soil microbial properties under N and P
560   additions in a semi-arid, sandy grassland. Biology and Fertility of Soils 46, 653-658 (2010).

561 198 Carol Adair, E. & Burke, I. C. Plant phenology and life span influence soil pool dynamics:
562   Bromus tectorum invasion of perennial C 3–C 4 grass communities. Plant and soil 335, 255-269
563   (2010).

564 199 Liu, Y. et al. Nitrogen addition promotes soil phosphorus availability in the subalpine forest of
565   eastern Tibetan Plateau. Journal of Soils and Sediments, 1-11 (2022).

566 200 Wu, Y. et al. Nitrous oxide emissions from an alpine grassland as affected by nitrogen addition.
567   Atmosphere 12, 976 (2021).

568 201 Dai, Y. et al. Response of soil bacterial communities to nitrogen and phosphorus additions in an
569   age-sequence of subtropical forests. iForest-Biogeosciences and Forestry 14, 71 (2021).

570   202   Wang, J.-J. et al. Long-term nitrogen addition alters the composition of soil-derived dissolved
571   organic matter. ACS Earth and Space Chemistry 4, 189-201 (2019).

572   203   Liu, X., Lamb, E. G. & Zhang, S. Nitrogen addition impacts on soil microbial stoichiometry are
573   driven by changes in plant resource stoichiometry not by the composition of main microbial
574   groups in an alpine meadow. Biology and fertility of soils 56, 261-271 (2020).

575   204   Choma, M. et al. Bacteria but not fungi respond to soil acidification rapidly and consistently in
576   both a spruce and beech forest. FEMS Microbiology Ecology 96, fiaa174 (2020).

577   205   Ataka, M., Sun, L., Nakaji, T., Katayama, A. & Hiura, T. Five-year nitrogen addition affects fine
578   root exudation and its correlation with root respiration in a dominant species, Quercus crispula,
579   of a cool temperate forest, Japan. Tree physiology 40, 367-376 (2020).

580   206   Phillips, C. A., Elberling, B. & Michelsen, A. Soil carbon and nitrogen stocks and turnover
581   following 16 years of warming and litter addition. Ecosystems 22, 110-124 (2019).

582   207   Yuan, X. et al. Effects of short-term warming and nitrogen addition on the quantity and quality
583   of dissolved organic matter in a subtropical Cunninghamia lanceolata plantation. Plos one 13,
584   e0191403 (2018).

585   208   Jung, K., Kwak, J.-H., Gilliam, F. S. & Chang, S. X. Simulated N and S deposition affected soil
586   chemistry and understory plant communities in a boreal forest in western Canada. Journal of
587   plant ecology 11, 511-523 (2018).

588   209   Gong, Y., Wu, J., Vogt, J., Le, T. B. & Yuan, T. Combination of warming and vegetation
589   composition change strengthens the environmental controls on N2O fluxes in a boreal peatland.
590   Atmosphere 9, 480 (2018).

591   210   Chen, G.-t., Tu, L.-h., Chen, G.-s., Hu, J.-y. & Han, Z.-l. Effect of six years of nitrogen additions
592   on soil chemistry in a subtropical Pleioblastus amarus forest, Southwest China. Journal of
593   forestry research 29, 1657-1664 (2018).

594   211   Zhang, K. et al. Impact of nitrogen fertilization on soil–Atmosphere greenhouse gas exchanges
595   in eucalypt plantations with different soil characteristics in southern China. Plos one 12,
596   e0172142 (2017).

597   212   Wang, Y., Wang, H., He, J.-S. & Feng, X. Iron-mediated soil carbon response to water-table
598   decline in an alpine wetland. Nature communications 8, 15972 (2017).

599   213   Ritson, J. P. et al. The effect of drought on dissolved organic carbon (DOC) release from
600   peatland soil and vegetation sources. Biogeosciences 14, 2891-2902 (2017).

601   214   Niboyet, A., Bardoux, G., Barot, S. & Bloor, J. M. Elevated CO 2 mediates the short-term
602   drought recovery of ecosystem function in low-diversity grassland systems. Plant and soil 420,
603   289-302 (2017).

604   215   Lei, Z., Sun, H., Li, Q., Zhang, J. & Song, X. Effects of nitrogen deposition on soil dissolved
605   organic carbon and nitrogen in Moso bamboo plantations strongly depend on management
606   practices. Forests 8, 452 (2017).

607   216   Jia, X., Liu, T., Zhao, Y., He, Y. & Yang, M. Elevated atmospheric CO 2 affected photosynthetic
608   products in wheat seedlings and biological activity in rhizosphere soil under cadmium stress.
609   Environmental Science and Pollution Research 23, 514-526 (2016).

610   217   He, D. et al. Composition of the soil fungal community is more sensitive to phosphorus than
611   nitrogen addition in the alpine meadow on the Qinghai-Tibetan Plateau. Biology and Fertility of
612   Soils 52, 1059-1072 (2016).

613   218   Hasegawa, S., Macdonald, C. A. & Power, S. A. Elevated carbon dioxide increases soil nitrogen

614   and phosphorus availability in a phosphorus-limited Eucalyptus woodland. Global Change
615   Biology 22, 1628-1643 (2016).

616   219   Carrillo, Y., Dijkstra, F. A., LeCain, D. & Pendall, E. Mediation of soil C decomposition by
617   arbuscular mycorrizhal fungi in grass rhizospheres under elevated CO 2. Biogeochemistry 127,
618   45-55 (2016).

619   220   Cai, Y., Chang, S. X., Ma, B. & Bork, E. W. Watering increased DOC concentration but
620   decreased N 2 O emission from a mixed grassland soil under different defoliation regimes.
621   Biology and Fertility of Soils 52, 987-996 (2016).

622   221   Gao, Y., Zeng, X., Xie, Q. & Ma, X. Release of carbon and nitrogen from alpine soils during
623   thawing periods in the eastern Qinghai-Tibet Plateau. Water, Air, & Soil Pollution 226, 1-9
624   (2015).

625   222   Fang, H. et al. Elevated atmospheric carbon dioxide concentration stimulates soil microbial
626   activity and impacts water-extractable organic carbon in an agricultural soil. Biogeochemistry
627   122, 253-267 (2015).

628   223   Xu, M. et al. Low-level nitrogen addition promotes net methane uptake in a boreal forest across
629   the Great Xing'an Mountain Region, China. Forest Science 60, 973-981 (2014).

630   224   Li, T., Tao, Q., Liang, C. & Yang, X. Elevated CO 2 concentration increase the mobility of Cd
631   and Zn in the rhizosphere of hyperaccumulator Sedum alfredii. Environmental science and
632   pollution research 21, 5899-5908 (2014).

633   225   Kane, E. S. et al. Peat porewater dissolved organic carbon concentration and lability increase
634   with warming: a field temperature manipulation experiment in a poor-fen. Biogeochemistry 119,
635   161-178 (2014).

636   226   Huang, J., Richard, H. & Zheng, S. Effects of nitrogen fertilization on soil labile carbon
637   fractions of freshwater marsh soil in Northeast China. International Journal of Environmental
638   Science and Technology 11, 2009-2014 (2014).

639   227   Delarue, F. et al. Indirect effects of experimental warming on dissolved organic carbon content
640   in subsurface peat. Journal of soils and sediments 14, 1800-1805 (2014).

641   228   Lu, X. et al. Long-term nitrogen addition decreases carbon leaching in a nitrogen-rich forest
642   ecosystem. Biogeosciences 10, 3931-3941 (2013).

643   229   Lovett, G. M., Arthur, M. A., Weathers, K. C., Fitzhugh, R. D. & Templer, P. H. Nitrogen
644   addition increases carbon storage in soils, but not in trees, in an eastern US deciduous forest.
645   Ecosystems 16, 980-1001 (2013).

646   230   Haei, M., Öquist, M. G., Ilstedt, U. & Laudon, H. The influence of soil frost on the quality of
647   dissolved organic carbon in a boreal forest soil: combining field and laboratory experiments.
648   Biogeochemistry 107, 95-106 (2012).

649   231   Carrillo, Y., Dijkstra, F. A., Pendall, E., Morgan, J. A. & Blumenthal, D. M. Controls over soil
650   nitrogen pools in a semiarid grassland under elevated CO 2 and warming. Ecosystems 15,
651   761-774 (2012).

652   232   Cusack, D. F., Silver, W. L., Torn, M. S. & McDowell, W. H. Effects of nitrogen additions on
653   above-and belowground carbon dynamics in two tropical forests. Biogeochemistry 104, 203-225
654   (2011).

655   233   Helliwell, R., Britton, A., Gibbs, S., Fisher, J. & Potts, J. Interactive effects of N deposition, land
656   management and weather patterns on soil solution chemistry in a Scottish alpine heath.
657   Ecosystems 13, 696-711 (2010).

658 234 Hagedorn, F. et al. Short-term responses of ecosystem carbon fluxes to experimental soil
659   warming at the Swiss alpine treeline. Biogeochemistry 97, 7-19 (2010).

660 235 Junod, J. et al. Effect of irrigation levels on dissolved organic carbon soil distribution and the
661   depth mobility of chlorpyrifos. Chilean journal of agricultural research 69, 435-444 (2009).

662 236 Fang, Y. et al. Large loss of dissolved organic nitrogen from nitrogen-saturated forests in
663   subtropical China. Ecosystems 12, 33-45 (2009).

664 237 Kim, S.-Y. & Kang, H. Effects of elevated CO 2 on below-ground processes in temperate marsh
665   microcosms. Hydrobiologia 605, 123-130 (2008).

666 238 Waldrop, M. P. & Zak, D. R. Response of oxidative enzyme activities to nitrogen deposition
667   affects soil concentrations of dissolved organic carbon. Ecosystems 9, 921-933 (2006).

668 239 Scheuner, E. T. & Makeschin, F. Impact of atmospheric nitrogen deposition on carbon dynamics
669   in two Scots pine forest soils of Northern Germany. Plant and soil 275, 43-54 (2005).

670 240 Marsh, A. S., Rasse, D. P., Drake, B. G. & Patrick Megonigal, J. Effect of elevated CO 2 on
671   carbon pools and fluxes in a brackish marsh. Estuaries 28, 694-704 (2005).

672 241 Pregitzer, K. S., Zak, D. R., Burton, A. J., Ashby, J. A. & MacDonald, N. W. Chronic nitrate
673   additions dramatically increase the export of carbon and nitrogen from northern hardwood
674   ecosystems. Biogeochemistry 68, 179-197 (2004).

675 242 King, J. et al. Fine-root biomass and fluxes of soil carbon in young stands of paper birch and
676   trembling aspen as affected by elevated atmospheric CO 2 and tropospheric O 3. Oecologia 128,
677   237-250 (2001).

678 243 Magill, A. H. et al. Long-term nitrogen additions and nitrogen saturation in two temperate
679   forests. Ecosystems 3, 238-253 (2000).

680 244 Lamontagne, S. & Schiff, S. L. The Response of a Heterogeneous Upland Boreal Shield
681   Catchment to a Short Term NO 3-Addition. Ecosystems 2, 460-473 (1999).

682 245 McDowell, W. H., Currie, W. S., Aber, J. D. & Yang, Y. in Biogeochemical Investigations at
683   Watershed, Landscape, and Regional Scales: Refereed papers from BIOGEOMON, The Third
684   International Symposium on Ecosystem Behavior; Co-Sponsored by Villanova University and
685   the Czech Geological Survey; held at Villanova University, Villanova Pennsylvania, USA, June
686   21–25, 1997.   175-182 (Springer).

687 246 Currie, W. S., Aber, J. D., McDowell, W. H., Boone, R. D. & Magill, A. H. Vertical transport of
688   dissolved organic C and N under long-term N amendments in pine and hardwood forests.
689   Biogeochemistry 35, 471-505 (1996).

690 247 Voigt, C. et al. Warming of subarctic tundra increases emissions of all three important
691   greenhouse gases–carbon dioxide, methane, and nitrous oxide. Global Change Biology 23,
692   3121-3138 (2017).

693 248 Basiliko, N., Moore, T. R., Jeannotte, R. & Bubier, J. L. Nutrient input and carbon and microbial
694   dynamics in an ombrotrophic bog. Geomicrobiology Journal 23, 531-543 (2006).

695 249 Hu, Y.-L., Jung, K., Zeng, D.-H. & Chang, S. X. Nitrogen-and sulfur-deposition-altered soil
696   microbial community functions and enzyme activities in a boreal mixedwood forest in western
697   Canada. Canadian Journal of Forest Research 43, 777-784 (2013).

698 250 Strack, M., Munir, T. M. & Khadka, B. Shrub abundance contributes to shifts in dissolved
699   organic carbon concentration and chemistry in a continental bog exposed to drainage and
700   warming. Ecohydrology 12, e2100 (2019).

701 251 Fouché, J., Keller, C., Allard, M. & Ambrosi, J. P. Increased CO2 fluxes under warming tests

and soil solution chemistry in Histic and Turbic Cryosols, Salluit, Nunavik, Canada. Soil Biology and Biochemistry 68, 185-199 (2014).

252 Peplau, T., Schroeder, J., Gregorich, E. & Poeplau, C. Long-term geothermal warming reduced stocks of carbon but not nitrogen in a subarctic forest soil. Global Change Biology 27, 5341-5355 (2021).

253 Gong, Y., Wu, J., Sey, A. A. & Le, T. B. Nitrogen addition (NH4NO3) mitigates the positive effect of warming on methane fluxes in a coastal bog. Catena 203, 105356 (2021).

254 Schleuss, P.-M. et al. Stoichiometric controls of soil carbon and nitrogen cycling after long-term nitrogen and phosphorus addition in a mesic grassland in South Africa. Soil Biology and Biochemistry 135, 294-303 (2019).

255 Widdig, M. et al. Microbial carbon use efficiency in grassland soils subjected to nitrogen and phosphorus additions. Soil Biology and Biochemistry 146, 107815 (2020).

256 Spohn, M. & Schleuss, P.-M. Addition of inorganic phosphorus to soil leads to desorption of organic compounds and thus to increased soil respiration. Soil Biology and Biochemistry 130, 220-226 (2019).

257 Oulehle, F. et al. Soil–solution partitioning of DOC in acid organic soils: results from a UK field acidification and alkalization experiment. European Journal of Soil Science 64, 787-796 (2013).

258 Hagedorn, F., Kammer, A., Schmidt, M. W. & Goodale, C. L. Nitrogen addition alters mineralization dynamics of 13 C-depleted leaf and twig litter and reduces leaching of older DOC from mineral soil. Global Change Biology 18, 1412-1427 (2012).

259 Seifert-Monson, L. et al. Effects of sulfate deposition on pore water dissolved organic carbon, nutrients, and microbial enzyme activities in a northern peatland. Soil Biology and Biochemistry 79, 91-99 (2014).

260 Wang, M. et al. Long-term warming increased microbial carbon use efficiency and turnover rate under conservation tillage system. Soil Biology and Biochemistry 172, 108770 (2022).

261 Niu, G. et al. Do long-term high nitrogen inputs change the composition of soil dissolved organic matter in a primary tropical forest? Environmental Research Letters 17, 095015 (2022).

262 Querejeta, J. I. et al. Lower relative abundance of ectomycorrhizal fungi under a warmer and drier climate is linked to enhanced soil organic matter decomposition. New Phytologist 232, 1399-1413 (2021).

263 Wang, H. et al. Effects of simulated nitrogen deposition on soil active carbon fractions in a wet meadow in the Qinghai-Tibet Plateau. Journal of Soil Science and Plant Nutrition 22, 2943-2954 (2022).

264 Yuan, X. et al. Effects of nitrogen addition on the concentration and composition of soil-based dissolved organic matter in subtropical Pinus taiwanensis forests. Journal of Soils and Sediments 22, 1924-1937 (2022).

265 Zhang, J. et al. Ten years of warming increased plant-derived carbon accumulation in an East Asian monsoon forest. Plant and Soil 481, 349-365 (2022).

266 Lu, F. et al. Long-term phosphorus addition strongly weakens the carbon sink function of a temperate peatland. Ecosystems 26, 201-216 (2023).

267 Yang, Y. et al. Soil enzyme activity regulates the response of soil C fluxes to N fertilization in a temperate cultivated grassland. Atmosphere 13, 777 (2022).

268 Weng, X., Sui, X., Liu, Y., Yang, L. & Zhang, R. Effect of nitrogen addition on the carbon metabolism of soil microorganisms in a Calamagrostis angustifolia wetland of the Sanjiang

746   Plain, northeastern China. Annals of Microbiology 72, 18 (2022).

747   269   Dong, L., Berg, B., Gu, W., Wang, Z. & Sun, T. Effects of different forms of nitrogen addition
748   on microbial extracellular enzyme activity in temperate grassland soil. Ecological Processes 11,
749   36 (2022).

750   270   Li, L. et al. Joint control by soil moisture, functional genes and substrates on response of N2O
751   flux to climate extremes in a semiarid grassland. Agricultural and Forest Meteorology 316,
752   108854 (2022).

753   271   Liao, L. et al. Differential effects of nitrogen addition on the organic carbon fractions of
754   rhizosphere and bulk soil based on a pot experiment. Journal of Soils and Sediments 23,
755   103-117 (2023).

756   272   Wang, Y., Hu, Z., Liu, C., Wu, Z. & Chen, S. Methane emissions in japonica rice paddy fields
757   under different elevated CO2 concentrations. Nutrient Cycling in Agroecosystems 122, 173-189
758   (2022).

759   273   Oestmann, J., Dettmann, U., Düvel, D. & Tiemeyer, B. Experimental warming increased
760   greenhouse gas emissions of a near-natural peatland and Sphagnum farming sites. Plant and Soil
761   480, 85-104 (2022).

762   274   Chen, W. et al. Divergent responses of soil microbial functional groups to long-term high
763   nitrogen presence in the tropical forests. Science of The Total Environment 821, 153251 (2022).

764   275   Chen, Y. et al. The stimulatory effect of elevated CO2 on soil respiration is unaffected by N
765   addition. Science of The Total Environment 813, 151907 (2022).

766   276   Guo, Y. et al. Effects of nitrogen and water addition on N2O emissions in temperate grasslands,
767   northern China. Applied Soil Ecology 177, 104548 (2022).

768   277   Li, N. et al. Combined livestock grazing-exclusion and global warming decreases nitrogen
769   mineralization by changing soil microbial community in a Tibetan alpine meadow. Catena 219,
770   106589 (2022).

771   278   Li, N. et al. Response of cbbL-harboring microorganisms to precipitation changes in a
772   naturally-restored grassland. Science of The Total Environment 838, 156191 (2022).

773   279   Luo, L. et al. Effects of mycorrhiza and hyphae on the response of soil microbial community to
774   warming in eastern Tibetan Plateau. Science of The Total Environment 837, 155498 (2022).

775   280   Wang, T. et al. Simultaneous Measurements of Dissolved Organic Carbon and Soil Respiration
776   Reveal Reduced Soil Carbon Loss Under Nitrogen Addition in a Montane Forest. Journal of
777   Geophysical Research: Biogeosciences 127, e2022JG006829 (2022).

778   281   Wu, G. et al. Effects of soil warming and straw return on soil organic matter and greenhouse gas
779   fluxes in winter wheat seasons in the North China Plain. Journal of Cleaner Production 356,
780   131810 (2022).

781   282   Yuan, X. et al. Relationship between soil bacterial communities and dissolved organic matter in
782   a subtropical Pinus taiwanensis forest after short-term nitrogen addition. Forest Ecology and
783   Management 512, 120165 (2022).

784   283   Wang, M. et al. Dissolved organic matter characteristics and important site factors in a
785   subtropical mountain forest in central China. Forest Science 66, 49-57 (2020).

786   284   Teng, Z., Fan, W., Wang, H., Cao, X. & Xu, X. Monitoring soil microorganisms with
787   community-level physiological profiles using Biolog EcoPlates™ in Chaohu lakeside wetland,
788   East China. Eurasian Soil Science 53, 1142-1153 (2020).

789   285   Rousset, C., Clough, T. J., Grace, P. R., Rowlings, D. W. & Scheer, C. Soil type, bulk density

790 and drainage effects on relative gas diffusivity and N2O emissions. Soil Research 58, 726-736
791 (2020).

792 286 Qin, X.-q. et al. Characterizing soil dissolved organic matter in typical soils from China using
793 fluorescence EEM–PARAFAC and UV–visible absorption. Aquatic Geochemistry 26, 71-88
794 (2020).

795 287 Lu, T., Wang, X. & Zhang, W. Total and dissolved soil organic and inorganic carbon and their
796 relationships in typical loess cropland of Fengu Basin. Geoscience Letters 7, 1-13 (2020).

797 288 Kouchou, A. et al. Evaluation of the environmental and human health risk related to metallic
798 contamination in agricultural soils in the Mediterranean semi-arid area (Saiss plain, Morocco).
799 Environmental earth sciences 79, 1-22 (2020).

800 289 Kholodov, V. et al. Optical properties of the extractable organic matter fractions in typical
801 chernozems of long-term field experiments. Eurasian Soil Science 53, 739-748 (2020).

802 290 Kharitonova, G. V., Kot, F. S. & Krutikova, V. O. Carbonate and concomitant microaggregation
803 in irrigated Mediterranean soils of Israel. Irrigation Science 38, 431-447 (2020).

804 291 Jeanneau, L. et al. Water table dynamics control carbon losses from the destabilization of soil
805 organic matter in a small, lowland agricultural catchment. Soil Systems 4, 2 (2019).

806 292 Imran, M. et al. Soil selenium transformation across different parent materials in Pothwar
807 uplands of Pakistan. Arabian Journal of Geosciences 13, 1-16 (2020).

808 293 Ide, J. i. et al. Molecular composition of soil dissolved organic matter in recently-burned and
809 long-unburned boreal forests. International Journal of Wildland Fire 29, 541-547 (2020).

810 294 Hailegnaw, N. S. et al. The role of biochar and soil properties in determining the available
811 content of Al, Cu, Zn, Mn, and Cd in soil. Agronomy 10, 885 (2020).

812 295 Gök, G. & Gürbüz, O. A. Application of geostatistics for grid and random sampling schemes for
813 a grassland in Nigde, Turkey. Environmental monitoring and assessment 192, 1-12 (2020).

814 296 Fovet, O., Cooper, D. M., Jones, D. L., Jones, T. G. & Evans, C. D. Dynamics of dissolved
815 organic matter in headwaters: comparison of headwater streams with contrasting DOM and
816 nutrient composition. Aquatic sciences 82, 1-12 (2020).

817 297 Curtin, D. et al. Exchangeable cation effects on hot water extractable carbon and nitrogen in
818 agricultural soils. Soil research 58, 356-363 (2020).

819 298 Croat, S., DeSutter, T., Casey, F. & O'Brien, P. Phosphorus sorption and desorption in soils
820 treated by thermal desorption. Water, Air, & Soil Pollution 231, 1-9 (2020).

821 299 Connolly, C. T., Cardenas, M. B., Burkart, G. A., Spencer, R. G. & McClelland, J. W.
822 Groundwater as a major source of dissolved organic matter to Arctic coastal waters. Nature
823 Communications 11, 1479 (2020).

824 300 Chibuike, G. et al. Denitrification capacity of hill country wet and dry area soils as influenced
825 by dissolved organic carbon concentration and chemistry. Wetlands 40, 681-691 (2020).

826 301 Azam, A. et al. Changes in soil organic carbon fractions across a loess toposequence. Journal of
827 Soil Science and Plant Nutrition 20, 1193-1202 (2020).

828 302 Zhang, H., Li, Y., Pang, M., Xi, M. & Kong, F. Responses of contents and structure of DOM to
829 Spartina alterniflora invasion in Yanghe estuary wetland of Jiaozhou Bay, China. Wetlands 39,
830 729-741 (2019).

831 303 Zeh, L., Limpens, J., Erhagen, B., Bragazza, L. & Kalbitz, K. Plant functional types and
832 temperature control carbon input via roots in peatland soils. Plant and Soil 438, 19-38 (2019).

833 304 Wang, T., Zhao, X., Wang, C., Huang, Z. & Liu, S. Analysis of three-dimensional fluorescence

834   spectrum characteristics of water extractable organic matter in Mollisols after different years of
835   cultivation. Applied Ecology & Environmental Research 17 (2019).

836   305   Thieme, L. et al. Dissolved organic matter characteristics of deciduous and coniferous forests
837   with variable management: different at the source, aligned in the soil. Biogeosciences 16,
838   1411-1432 (2019).

839   306   Stutz, K. P. et al. Lignin from white-rotted European beech deadwood and soil functions.
840   Biogeochemistry 145, 81-105 (2019).

841   307   Ritson, J. et al. Sources of dissolved organic carbon (DOC) in a mixed land use catchment (Exe,
842   UK). Science of the total environment 666, 165-175 (2019).

843   308   Pintaldi, E., Viglietti, D., D'Amico, M. E., Magnani, A. & Freppaz, M. Abiotic Parameters and
844   pedogenesis as controlling factors for soil C and N cycling along an elevational gradient in a
845   Subalpine Larch Forest (NW Italy). Forests 10, 614 (2019).

846   309   Petrash, D. A. et al. Spatially resolved soil solution chemistry in a central European
847   atmospherically polluted high-elevation catchment. Soil 5, 205-221 (2019).

848   310   Peach, M. E., Ogden, L. A., Mora, E. A. & Friedland, A. J. Building houses and managing lawns
849   could limit yard soil carbon for centuries. Carbon balance and management 14, 1-14 (2019).

850   311   Nie, X. et al. Effects of water erosion on soil organic carbon stability in the subtropical China.
851   Journal of soils and sediments 19, 3564-3575 (2019).

852   312   Liu, J. et al. Rice-paddy field acts as a buffer system to decrease the terrestrial characteristics of
853   dissolved organic matter exported from a typical small agricultural watershed in the Three
854   Gorges Reservoir Area, China. Environmental Science and Pollution Research 26, 23873-23885
855   (2019).

856   313   Li, S. et al. Compositional and chemical characteristics of dissolved organic matter in various
857   types of cropped and natural Chinese soils. Chemical and biological technologies in agriculture
858   6, 1-11 (2019).

859   314   Hunziker, M., Arnalds, O. & Kuhn, N. J. Evaluating the carbon sequestration potential of
860   volcanic soils in southern Iceland after birch afforestation. Soil 5, 223-238 (2019).

861   315   Fu, J. et al. Dissolved organic carbon leaching from montane grasslands under contrasting
862   climate, soil and management conditions. Biogeochemistry 145, 47-61 (2019).

863   316   Freppaz, M., Viglietti, D., Balestrini, R., Lonati, M. & Colombo, N. Climatic and pedoclimatic
864   factors driving C and N dynamics in soil and surface water in the alpine tundra (NW-Italian
865   Alps). Nature Conservation 34, 67-90 (2019).

866   317   Faghih, F., Emadi, M., Sadegh-Zadeh, F. & Bahmanyar, M. A. Long-term charcoal-induced
867   changes to soil properties in temperate regions of northern Iran. Journal of forestry research 30,
868   1063-1071 (2019).

869   318   Dublet, G. et al. Colloidal size and redox state of uranium species in the porewater of a pristine
870   mountain wetland. Environmental science & technology 53, 9361-9369 (2019).

871   319   Drozdova, O. Y. et al. Organic Matter Transformation in the Conjugate Series of Surface Water
872   in Northern Karelia. Water resources 46, 52-58 (2019).

873   320   Dalmagro, H. J. et al. Streams with riparian forest buffers versus impoundments differ in
874   discharge and DOM characteristics for pasture catchments in Southern Amazonia. Water 11, 390
875   (2019).

876   321   Chiu, T.-P., Huang, W.-S., Chen, T.-C. & Yeh, Y.-L. Fluorescence characteristics of dissolved
877   organic matter (DOM) in percolation water and lateral seepage affected by soil solution (SS) in

878   a lysimeter test. Sensors 19, 4016 (2019).

879   322   Cao, Z. et al. Past aridity's effect on carbon mineralization potentials in grassland soils.
880   Biogeosciences 16, 3605-3619 (2019).

881   323   Balestrini, R. et al. Dynamic of nitrogen and dissolved organic carbon in an alpine forested
882   catchment: atmospheric deposition and soil solution trends. Nature Conservation 34, 41-66
883   (2019).

884   324   Xiaodong Zheng, X. C., Chengming Liang, Y. H. & Jinshui Wu, Y. S. Influence of extractants
885   and filter materials in the extraction of dissolved organic matter (DOM) from subtropical
886   agricultural soil. Emirates Journal of Food and Agriculture, 165-172 (2018).

887   325   Zhang, Y., Duan, P., Zhang, P. & Li, M. Variations in cyanobacterial and algal communities and
888   soil characteristics under biocrust development under similar environmental conditions. Plant
889   and soil 429, 241-251 (2018).

890   326   Yang, Y. et al. Effects of different land types on soil enzyme activity in the Qinghai Lake region.
891   Wetlands 38, 711-721 (2018).

892   327   Xu, B., Wang, J., Wu, N., Wu, Y. & Shi, F. Seasonal and interannual dynamics of soil microbial
893   biomass and available nitrogen in an alpine meadow in the eastern part of Qinghai–Tibet Plateau,
894   China. Biogeosciences 15, 567-579 (2018).

895   328   Wu, Y., Shaaban, M., Peng, Q. a., Zhou, A. q. & Hu, R. Impacts of earthworm activity on the
896   fate of straw carbon in soil: a microcosm experiment. Environmental Science and Pollution
897   Research 25, 11054-11062 (2018).

898   329   Song, G., Novotny, E. H., Richards, K. G. & Hayes, M. H. Characteristics of hydrophobic and
899   hydrophilic acid fractions in drainage waters of undisturbed soil lysimeters. Journal of soils and
900   sediments 18, 3197-3214 (2018).

901   330   Shen, Y. et al. Labile organic carbon pools and enzyme activities of Pinus massoniana plantation
902   soil as affected by understory vegetation removal and thinning. Scientific reports 8, 573 (2018).

903   331   Rosa, E. & Debska, B. Seasonal changes in the content of dissolved organic matter in arable
904   soils. Journal of Soils and Sediments 18, 2703-2714 (2018).

905   332   Nygaard, P. H., Strand, L. T. & Stuanes, A. O. Gap formation and dynamics after long-term
906   steady state in an old-growth Picea abies stand in Norway: Above-and belowground interactions.
907   Ecology and evolution 8, 462-476 (2018).

908   333   Nakhavali, M. et al. Representation of dissolved organic carbon in the JULES land surface
909   model (vn4. 4_JULES-DOCM). Geoscientific Model Development 11, 593-609 (2018).

910   334   Li, D. et al. Cadmium bioavailability well assessed by DGT and factors influencing cadmium
911   accumulation in rice grains from paddy soils of three parent materials. Journal of soils and
912   sediments 18, 2552-2561 (2018).

913   335   Kov, R. et al. A farm-scale investigation of the organic matter composition and soil chemistry of
914   Andisols as influenced by land use and management. Biogeochemistry 140, 65-79 (2018).

915   336   Kobierski, M., Kondratowicz-Maciejewska, K., Banach-Szott, M., Wojewódzki, P. & Peñas
916   Castejón, J. M. Humic substances and aggregate stability in rhizospheric and non-rhizospheric
917   soil. Journal of Soils and Sediments 18, 2777-2789 (2018).

918   337   Homyak, P. M. et al. Effects of altered dry season length and plant inputs on soluble soil carbon.
919   Ecology 99, 2348-2362 (2018).

920   338   Guo, Y., Song, C., Tan, W., Wang, X. & Lu, Y. Hydrological processes and permafrost regulate
921   magnitude, source and chemical characteristics of dissolved organic carbon export in a peatland

922   catchment of northeastern China. Hydrology and Earth System Sciences 22, 1081-1093 (2018).

923   339   Glina, B., Bogacz, A., Mendyk, Ł., Bojko, O. & Nowak, M. Effectiveness of restoration of a
924   degraded shallow mountain fen after five years.   (2018).

925   340   Costa, E. N. D. d., Landim de Souza, M. F., Lima Marrocos, P. C., Lobao, D. & Lopes da Silva,
926   D. M. Soil organic matter and CO2 fluxes in small tropical watersheds under forest and cacao
927   agroforestry. PloS one 13, e0200550 (2018).

928   341   Barcellos, D., O'Connell, C. S., Silver, W., Meile, C. & Thompson, A. Hot spots and hot
929   moments of soil moisture explain fluctuations in iron and carbon cycling in a humid tropical
930   forest soil. Soil Systems 2, 59 (2018).

931   342   Banach-Szott, M., Kondratowicz-Maciejewska, K. & Kobierski, M. Humic substances in
932   Fluvisols of the Lower Vistula floodplain, North Poland. Environmental Science and Pollution
933   Research 25, 23992-24002 (2018).

934   343   AlMulla, A. A., Jones, D. & Roberts, P. Substrate influences temperature sensitivity of dissolved
935   organic carbon (DOC) and nitrogen (DON) mineralization in arid agricultural soils. Soil
936   Systems 2, 28 (2018).

937   344   Wang, J., Song, C., Hou, A. & Xi, F. Methane emission potential from freshwater marsh soils of
938   Northeast China: response to simulated freezing-thawing cycles. Wetlands 37, 437-445 (2017).

939   345   Wang, C., Tong, C., Chambers, L. G. & Liu, X. Identifying the salinity thresholds that impact
940   greenhouse gas production in subtropical tidal freshwater marsh soils. Wetlands 37, 559-571
941   (2017).

942   346   Tang, J., Zhang, Y., Zha, Y., Li, X. & Fan, S. Oxalate enhances desorption of perfluorooctane
943   sulfonate from soils and sediments. Water, Air, & Soil Pollution 228, 1-11 (2017).

944   347   Sanderman, J. & Kramer, M. G. Dissolved organic matter retention in volcanic soils with
945   contrasting mineralogy: a column sorption experiment. Biogeochemistry 135, 293-306 (2017).

946   348   Raudina, T. V. et al. Dissolved organic carbon and major and trace elements in peat porewater of
947   sporadic, discontinuous, and continuous permafrost zones of western Siberia. Biogeosciences 14,
948   3561-3584 (2017).

949   349   Qiu, J. & Turner, M. G. Effects of non-native Asian earthworm invasion on temperate forest and
950   prairie soils in the Midwestern US. Biological Invasions 19, 73-88 (2017).

951   350   Puissant, J. et al. Climate change effects on the stability and chemistry of soil organic carbon
952   pools in a subalpine grassland. Biogeochemistry 132, 123-139 (2017).

953   351   Morling, K., Raeke, J., Kamjunke, N., Reemtsma, T. & Tittel, J. Tracing aquatic priming effect
954   during microbial decomposition of terrestrial dissolved organic carbon in chemostat experiments.
955   Microbial ecology 74, 534-549 (2017).

956   352   McDonald, G. et al. A survey of total and dissolved organic carbon in alkaline soils of southern
957   Australia. Soil Research 55, 617-629 (2017).

958   353   Li, Z. et al. Effects of moso bamboo (Phyllostachys edulis) invasions on soil nitrogen cycles
959   depend on invasion stage and warming. Environmental Science and Pollution Research 24,
960   24989-24999 (2017).

961   354   Li, Y., Wang, Y., Xu, S., Hu, B. & Wang, Z.-L. Effects of mariculture and solar-salt production
962   on sediment microbial community structure in a coastal wetland. Journal of Coastal Research 33,
963   573-582 (2017).

964   355   Jiskra, M., Wiederhold, J. G., Skyllberg, U., Kronberg, R.-M. & Kretzschmar, R. Source tracing
965   of natural organic matter bound mercury in boreal forest runoff with mercury stable isotopes.

966   Environmental Science: Processes & Impacts 19, 1235-1248 (2017).

967   356   Jiang, X. et al. Colloid-bound and dissolved phosphorus species in topsoil water extracts along a
968   grassland transect from Cambisol to Stagnosol. Biogeosciences 14, 1153-1164 (2017).

969   357   Ide, J. i. et al. Spatial variations in the molecular diversity of dissolved organic matter in water
970   moving through a boreal forest in eastern Finland. Scientific reports 7, 42102 (2017).

971   358   Cuske, M., Karczewska, A. & Gałka, B. Speciation of Cu, Zn, and Pb in Soil Solutions
972   Extracted from Strongly Polluted Soils Treated with Organic Materials. Polish Journal of
973   Environmental Studies 26 (2017).

974   359   Conner, L. G., Gill, R. A. & Harvey, J. T. Earlier snowmelt accompanied by warmer soil
975   temperatures in mid-latitude aspen forest and subalpine meadow: Implications for soil carbon.
976   Plant and Soil 417, 275-285 (2017).

977   360   Cheng, X., Yu, M. & Wang, G. G. Effects of thinning on soil organic carbon fractions and soil
978   properties in Cunninghamia lanceolata stands in eastern China. Forests 8, 198 (2017).

979   361   Cao, Q. et al. Factors affecting distribution patterns of organic carbon in sediments at regional
980   and national scales in China. Scientific reports 7, 5497 (2017).

981   362   Broder, T., Knorr, K.-H. & Biester, H. Changes in dissolved organic matter quality in a peatland
982   and forest headwater stream as a function of seasonality and hydrologic conditions. Hydrology
983   and Earth System Sciences 21, 2035-2051 (2017).

984   363   Bojko, O. et al. Labile and stable soil organic carbon fractions in surface horizons of mountain
985   soils–relationships with vegetation and altitude. Journal of Mountain Science 14, 2391-2405
986   (2017).

987   364   Yuan, H.-Y. et al. Geographic distance and amorphous iron affect the abundance and distribution
988   of Geobacteraceae in paddy soils in China. Journal of Soils and Sediments 16, 2657-2665
989   (2016).

990   365   Yang, C., Wang, Y., Jing, Y. & Li, J. The impact of land use on riparian soil dissolved organic
991   matter and on streamwater quality on Chongming Island, China. Regional Environmental
992   Change 16, 2399-2408 (2016).

993   366   Wu, H., Xu, X., Duan, C., Li, T. & Cheng, W. Synergistic effects of dissolved organic carbon
994   and inorganic nitrogen on methane uptake in forest soils without and with freezing treatment.
995   Scientific Reports 6, 32555 (2016).

996   367   Wang, J.-J., Jiao, Y., Rhew, R. C. & Chow, A. T. Haloform formation in coastal wetlands along a
997   salinity gradient at South Carolina, United States. Environmental Chemistry 13, 745-756 (2016).

998   368   Vázquez, C. et al. Land use impact on chemical and spectroscopical characteristics of soil
999   organic matter in an arid ecosystem. Environmental Earth Sciences 75, 1-13 (2016).

1000   369   Thieme, L., Graeber, D., Kaupenjohann, M. & Siemens, J. Fast-freezing with liquid nitrogen
1001   preserves bulk dissolved organic matter concentrations, but not its composition. Biogeosciences
1002   13, 4697-4705 (2016).

1003   370   Supriatin, S., Weng, L. & Comans, R. N. Selenium-rich dissolved organic matter determines
1004   selenium uptake in wheat grown on Low-selenium arable land soils. Plant and Soil 408, 73-94
1005   (2016).

1006   371   Rouwane, A., Rabiet, M., Grybos, M., Bernard, G. & Guibaud, G. Effects of NO_3^- and PO_4^{3-}
1007   on the release of geogenic arsenic and antimony in agricultural wetland soil: a field and
1008   laboratory approach. Environmental Science and Pollution Research 23, 4714-4728 (2016).

1009   372   Ogrinc, N. et al. Inorganic and organic carbon dynamics in forested soils developed on

contrasting geology in Slovenia—A stable isotope approach. Journal of soils and sediments 16, 382-395 (2016).

373 Mo, Q. et al. Reforestation in southern China: revisiting soil N mineralization and nitrification after 8 years restoration. Scientific Reports 6, 19770 (2016).

374 Ma, W. et al. Stability of soil organic carbon and potential carbon sequestration at eroding and deposition sites. Journal of Soils and Sediments 16, 1705-1717 (2016).

375 Liao, S. et al. Water, rather than temperature, dominantly impacts how soil fauna affect dissolved carbon and nitrogen release from fresh litter during early litter decomposition. Forests 7, 249 (2016).

376 Klimek, B., Chodak, M., Jaźwa, M. & Niklińska, M. Functional diversity of soil microbial communities in boreal and temperate Scots pine forests. European Journal of Forest Research 135, 731-742 (2016).

377 Karl, A. D., Merwin, I. A., Brown, M. G., Hervieux, R. A. & Heuvel, J. E. V. Under-vine management impacts soil properties and leachate composition in a New York State Vineyard. HortScience 51, 941-949 (2016).

378 Julian, P., Gu, B. & Wright, A. L. Mercury stoichiometric relationships in a subtropical peatland. Water, Air, & Soil Pollution 227, 1-16 (2016).

379 Jones, T. G., Evans, C. D., Jones, D. L., Hill, P. W. & Freeman, C. Transformations in DOC along a source to sea continuum; impacts of photo-degradation, biological processes and mixing. Aquatic Sciences 78, 433-446 (2016).

380 Joly, F.-X., Fromin, N., Kiikkilä, O. & Hättenschwiler, S. Diversity of leaf litter leachates from temperate forest trees and its consequences for soil microbial activity. Biogeochemistry 129, 373-388 (2016).

381 Hu, Z. et al. A comparison of methane emissions following rice paddies conversion to crab-fish farming wetlands in southeast China. Environmental Science and Pollution Research 23, 1505-1515 (2016).

382 Hofmann, K., Lamprecht, A., Pauli, H. & Illmer, P. Distribution of prokaryotic abundance and microbial nutrient cycling across a high-alpine altitudinal gradient in the Austrian Central Alps is affected by vegetation, temperature, and soil nutrients. Microbial ecology 72, 704-716 (2016).

383 Hanan, E. J., D'Antonio, C. M., Roberts, D. A. & Schimel, J. P. Factors regulating nitrogen retention during the early stages of recovery from fire in coastal chaparral ecosystems. Ecosystems 19, 910-926 (2016).

384 Gómez-Gener, L. et al. When water vanishes: magnitude and regulation of carbon dioxide emissions from dry temporary streams. Ecosystems 19, 710-723 (2016).

385 Gerschlauer, F. et al. Gross nitrogen turnover of natural and managed tropical ecosystems at Mt. Kilimanjaro, Tanzania. Ecosystems 19, 1271-1288 (2016).

386 Fuss, C. B. et al. Nitrate and dissolved organic carbon mobilization in response to soil freezing variability. Biogeochemistry 131, 35-47 (2016).

387 Dunn, C., Jones, T. G., Roberts, S. & Freeman, C. Plant species effects on the carbon storage capabilities of a blanket bog complex. Wetlands 36, 47-58 (2016).

388 Burger, M., Haden, V. R., Chen, H., Six, J. & Horwath, W. R. Stand age affects emissions of N 2 O in flood-irrigated alfalfa: a comparison of field measurements, DNDC model simulations and IPCC Tier 1 estimates. Nutrient Cycling in Agroecosystems 106, 335-345 (2016).

389 Wei, H. et al. Are variations in heterotrophic soil respiration related to changes in substrate

1054 availability and microbial biomass carbon in the subtropical forests? Scientific Reports 5, 18370
1055 (2015).

1056 390 Wang, G. et al. Distribution of dissolved organic carbon and KMnO 4-oxidizable carbon along
1057 the low-to-high intertidal gradient in a mangrove forest. Journal of Soils and Sediments 15,
1058 2199-2209 (2015).

1059 391 Tsai, C.-W., Tian, G. & Chiu, C.-Y. Great fraction of dissolved organic C and N in the primary
1060 per-humid Chamaecyparis forest soil. Botanical Studies 56, 1-9 (2015).

1061 392 Tong, C., Huang, J. & Jia, Y. Small-scale spatial variability of soil methane production potential
1062 and porewater characteristics in an estuarine Phragmites australis marsh. Journal of Coastal
1063 Research 31, 994-1004 (2015).

1064 393 Tirado-Corbalá, R., Anderson, R. G., Wang, D. & Ayars, J. E. Soil carbon and nitrogen stocks of
1065 different Hawaiian sugarcane cultivars. Agronomy 5, 239-261 (2015).

1066 394 Rékási, M. & Filep, T. Factors determining Cd, Co, Cr, Cu, Ni, Mn, Pb and Zn mobility in
1067 uncontaminated arable and forest surface soils in Hungary. Environmental Earth Sciences 74,
1068 6805-6817 (2015).

1069 395 Pu, X. et al. Responses of soil carbon and nitrogen to successive land use conversion in
1070 seasonally frozen zones. Plant and soil 387, 117-130 (2015).

1071 396 Liao, S. et al. Soil fauna affects dissolved carbon and nitrogen in foliar litter in alpine forest and
1072 alpine meadow. Plos one 10, e0139099 (2015).

1073 397 Levia, D. F. et al. Calcium and aluminum cycling in a temperate broadleaved deciduous forest of
1074 the eastern USA: relative impacts of tree species, canopy state, and flux type. Environmental
1075 monitoring and assessment 187, 1-13 (2015).

1076 398 KOCINIEWSKA, K. Soil quality assessment of Phaeozems and Luvisols from the Kujawy
1077 region (central Poland). Soil Science Annual 66, 111-118 (2015).

1078 399 Kaňa, J., Tahovska, K., Kopáček, J. & Šantrůčková, H. Excess of organic carbon in mountain
1079 spruce forest soils after bark beetle outbreak altered microbial N transformations and mitigated
1080 N-saturation. PLoS One 10, e0134165 (2015).

1081 400 Chávez-Vergara, B. M., González-Rodríguez, A., Etchevers, J. D., Oyama, K. & García-Oliva, F.
1082 Foliar nutrient resorption constrains soil nutrient transformations under two native oak species
1083 in a temperate deciduous forest in Mexico. European Journal of Forest Research 134, 803-817
1084 (2015).

1085 401 Bradová, M. et al. The variations of aluminium species in mountainous forest soils and its
1086 implications to soil acidification. Environmental Science and Pollution Research 22,
1087 16676-16687 (2015).

1088 402 Armstrong, A., Waldron, S., Ostle, N. J., Richardson, H. & Whitaker, J. Biotic and abiotic
1089 factors interact to regulate northern peatland carbon cycling. Ecosystems 18, 1395-1409 (2015).

1090 403 Zhang, S. et al. Changes in pH, dissolved organic matter and Cd species in the rhizosphere soils
1091 of Cd phytostabilizer Athyrium wardii (Hook.) Makino involved in Cd tolerance and
1092 accumulation. Environmental Science and Pollution Research 21, 4605-4613 (2014).

1093 404 Yuan, J., Ding, W., Liu, D., Xiang, J. & Lin, Y. Methane production potential and methanogenic
1094 archaea community dynamics along the Spartina alterniflora invasion chronosequence in a
1095 coastal salt marsh. Applied microbiology and biotechnology 98, 1817-1829 (2014).

1096 405 Ukonmaanaho, L., Starr, M., Lindroos, A.-J. & Nieminen, T. M. Long-term changes in acidity
1097 and DOC in throughfall and soil water in Finnish forests. Environmental monitoring and

1098   assessment 186, 7733-7752 (2014).

1099 406 Tiemeyer, B. & Kahle, P. Nitrogen and dissolved organic carbon (DOC) losses from an
1100   artificially drained grassland on organic soils. Biogeosciences 11, 4123-4137 (2014).

1101 407 Scheibe, A. & Gleixner, G. Influence of litter diversity on dissolved organic matter release and
1102   soil carbon formation in a mixed beech forest. PloS one 9, e114040 (2014).

1103 408 Ohno, T. et al. Molecular composition and biodegradability of soil organic matter: a case study
1104   comparing two new England forest types. Environmental science & technology 48, 7229-7236
1105   (2014).

1106 409 Liu, T.-Z., Liu, C.-Q., Lang, Y.-C. & Ding, H. Dissolved organic carbon and its carbon isotope
1107   compositions in hill slope soils of the karst area of southwest China: Implications for carbon
1108   dynamics in limestone soil. Geochemical Journal 48, 277-285 (2014).

1109 410 Liu, D., Ding, W., Yuan, J., Xiang, J. & Lin, Y. Substrate and/or substrate-driven changes in the
1110   abundance of methanogenic archaea cause seasonal variation of methane production potential in
1111   species-specific freshwater wetlands. Applied microbiology and biotechnology 98, 4711-4721
1112   (2014).

1113 411 He, D. & Ruan, H. Long term effect of land reclamation from lake on chemical composition of
1114   soil organic matter and its mineralization. Plos one 9, e99251 (2014).

1115 412 Gao, J., Zhang, X., Lei, G. & Wang, G. Soil organic carbon and its fractions in relation to
1116   degradation and restoration of wetlands on the Zoigê Plateau, China. Wetlands 34, 235-241
1117   (2014).

1118 413 Franchini, A. G., Erny, I. & Zeyer, J. Spatial variability of methane emissions from Swiss alpine
1119   fens. Wetlands ecology and management 22, 383-397 (2014).

1120 414 Fink, J. R. et al. Chemical and mineralogical changes in a Brazilian Rhodic Paleudult under
1121   different land use and managements. Revista Brasileira de Ciência do Solo 38, 1304-1314
1122   (2014).

1123 415 Ding, Y., Cawley, K. M., Da Cunha, C. N. & Jaffé, R. Environmental dynamics of dissolved
1124   black carbon in wetlands. Biogeochemistry 119, 259-273 (2014).

1125 416 Lim Kim Choo, L. N. & Ahmed, O. H. Partitioning carbon dioxide emission and assessing
1126   dissolved organic carbon leaching of a drained peatland cultivated with pineapple at Saratok,
1127   Malaysia. The Scientific World Journal 2014, 906021 (2014).

1128 417 Bhadha, J. H., Lang, T. A. & Daroub, S. H. Seasonal delivery of organic matter and metals to
1129   farm canals: effect on sediment phosphorus storage capacity. Journal of soils and sediments 14,
1130   991-1003 (2014).

1131 418 Xu, J., Yang, S., Peng, S., Wei, Q. & Gao, X. Solubility and leaching risks of organic carbon in
1132   paddy soils as affected by irrigation managements. The Scientific World Journal 2013, 546750
1133   (2013).

1134 419 Wei, S. & Twardowska, I. Main rhizosphere characteristics of the Cd hyperaccumulator Rorippa
1135   globosa (Turcz.) Thell. Plant and soil 372, 669-681 (2013).

1136 420 Wang, F. et al. Seedling growth and soil nutrient availability in exotic and native tree species:
1137   implications for afforestation in southern China. Plant and Soil 364, 207-218 (2013).

1138 421 Salek-Gilani, S., Raiesi, F., Tahmasebi, P. & Ghorbani, N. Soil organic matter in restored
1139   rangelands following cessation of rainfed cropping in a mountainous semi-arid landscape.
1140   Nutrient cycling in agroecosystems 96, 215-232 (2013).

1141 422 Marañón-Jiménez, S. & Castro, J. Effect of decomposing post-fire coarse woody debris on soil

1142 fertility and nutrient availability in a Mediterranean ecosystem. Biogeochemistry 112, 519-535
1143 (2013).

423 Knorr, K.-H. DOC-dynamics in a small headwater catchment as driven by redox fluctuations
and hydrological flow paths–are DOC exports mediated by iron reduction/oxidation cycles?
Biogeosciences 10, 891-904 (2013).

424 Huang, W. et al. Dissolved organic carbon in headwater streams and riparian soil organic carbon
along an altitudinal gradient in the Wuyi Mountains, China. PLoS One 8, e78973 (2013).

425 Farrell, M. et al. Oligopeptides represent a preferred source of organic N uptake: a global
phenomenon? Ecosystems 16, 133-145 (2013).

426 De Marco, A., Arena, C., Giordano, M. & Virzo De Santo, A. Impact of the invasive tree black
locust on soil properties of Mediterranean stone pine-holm oak forests. Plant and soil 372,
473-486 (2013).

427 Bolan, N., Kunhikrishnan, A. & Gibbs, J. Rhizoreduction of arsenate and chromate in Australian
native grass, shrub and tree vegetation. Plant and soil 367, 615-625 (2013).

428 Bi, R., Lu, Q., Yu, W., Yuan, Y. & Zhou, S. Electron transfer capacity of soil dissolved organic
matter and its potential impact on soil respiration. Journal of Soils and Sediments 13, 1553-1560
(2013).

429 Bhattacharyya, P. et al. Net ecosystem CO 2 exchange and carbon cycling in tropical lowland
flooded rice ecosystem. Nutrient cycling in agroecosystems 95, 133-144 (2013).

430 Yang, Y. et al. Dissolved organic carbon in association with water soluble nutrients and metals in
soils from Lake Okeechobee Watershed, South Florida. Water, Air, & Soil Pollution 223,
4075-4088 (2012).

431 Wang, A. et al. Abundance and composition dynamics of soil ammonia-oxidizing archaea in an
alpine fir forest on the eastern Tibetan Plateau of China. Canadian Journal of Microbiology 58,
572-580 (2012).

432 Qi, Y. et al. Effects of a conversion from grassland to cropland on the different soil organic
carbon fractions in Inner Mongolia, China. Journal of Geographical Sciences 22, 315-328
(2012).

433 Liebner, S., Schwarzenbach, S. P. & Zeyer, J. Methane emissions from an alpine fen in central
Switzerland. Biogeochemistry 109, 287-299 (2012).

434 Hossain, M. et al. Spatial heterogeneity and kinetic regulation of arsenic dynamics in mangrove
sediments: the Sundarbans, Bangladesh. Environmental science & technology 46, 8645-8652
(2012).

435 Ginzburg, O. & Steinberger, Y. Effects of forest wildfire on soil microbial-community activity
and chemical components on a temporal-seasonal scale. Plant and soil 360, 243-257 (2012).

436 Fasching, C. & Battin, T. J. Exposure of dissolved organic matter to UV-radiation increases
bacterial growth efficiency in a clear-water Alpine stream and its adjacent groundwater. Aquatic
Sciences 74, 143-153 (2012).

437 Tu, C.-L., Liu, C.-Q., Lu, X.-H., Yuan, J. & Lang, Y.-C. Sources of dissolved organic carbon in
forest soils: evidences from the differences of organic carbon concentration and isotope
composition studies. Environmental Earth Sciences 63, 723-730 (2011).

438 Senga, Y. et al. Vertical profiles of DIN, DOC, and microbial activities in the wetland soil of
Kushiro Mire, northeastern Japan. Limnology 12, 17-23 (2011).

439 Löfgren, S. et al. Recovery of soil water, groundwater, and streamwater from acidification at the

1186   Swedish Integrated Monitoring catchments. Ambio 40, 836-856 (2011).

1187   440   Liu, D., Ding, W., Jia, Z. & Cai, Z. Relation between methanogenic archaea and methane
1188   production potential in selected natural wetland ecosystems across China. Biogeosciences 8,
1189   329-338 (2011).

1190   441   Kunhikrishnan, A., Bolan, N. S. & Naidu, R. Phytoavailability of copper in the presence of
1191   recycled water sources. Plant and soil 348, 425-438 (2011).

1192   442   Hur, J. Microbial changes in selected operational descriptors of dissolved organic matters from
1193   various sources in a watershed. Water, Air, & Soil Pollution 215, 465-476 (2011).

1194   443   Groffman, P. M. et al. Snow depth, soil freezing and nitrogen cycling in a northern hardwood
1195   forest landscape. Biogeochemistry 102, 223-238 (2011).

1196   444   Bárcenas-Moreno, G., García-Orenes, F., Mataix-Solera, J., Mataix-Beneyto, J. & Bååth, E. Soil
1197   microbial recolonisation after a fire in a Mediterranean forest. Biology and Fertility of soils 47,
1198   261-272 (2011).

1199   445   Yu, X., Zhang, Y., Zhao, H., Lu, X. & Wang, G. Freeze-thaw effects on sorption/desorption of
1200   dissolved organic carbon in wetland soils. Chinese Geographical Science 20, 209-217 (2010).

1201   446   Wu, Y., Clarke, N. & Mulder, J. Dissolved organic nitrogen concentrations and ratios of
1202   dissolved organic carbon to dissolved organic nitrogen in throughfall and soil waters in Norway
1203   spruce and Scots pine forest stands throughout Norway. Water, Air, & Soil Pollution 210,
1204   171-186 (2010).

1205   447   Tejnecký, V. et al. Seasonal variation of water extractable aluminium forms in acidified forest
1206   organic soils under different vegetation cover. Biogeochemistry 101, 151-163 (2010).

1207   448   Schmidt, B. H., Wang, C.-P., Chang, S.-C. & Matzner, E. High precipitation causes large fluxes
1208   of dissolved organic carbon and nitrogen in a subtropical montane Chamaecyparis forest in
1209   Taiwan. Biogeochemistry 101, 243-256 (2010).

1210   449   Roux-Michollet, D., Dudal, Y., Jocteur-Monrozier, L. & Czarnes, S. Steam treatment of surface
1211   soil: how does it affect water-soluble organic matter, C mineralization, and bacterial community
1212   composition? Biology and fertility of soils 46, 607-616 (2010).

1213   450   Oyanagi, N. & Nakata, M. Dynamics of dissolved ions in the soil of abandoned terraced paddy
1214   fields in Sado Island, Japan. Paddy and Water Environment 8, 121-129 (2010).

1215   451   Cloutier-Hurteau, B., Turmel, M.-C., Sauvé, S. & Courchesne, F. The speciation of
1216   water-soluble Al and Zn in the rhizosphere of forest soils. Journal of Environmental Monitoring
1217   12, 1274-1286 (2010).

1218   452   Chu, H. & Grogan, P. Soil microbial biomass, nutrient availability and nitrogen mineralization
1219   potential among vegetation-types in a low arctic tundra landscape. Plant and soil 329, 411-420
1220   (2010).

1221   453   Chen, D., Zhang, Y., Lin, Y., Zhu, W. & Fu, S. Changes in belowground carbon in Acacia
1222   crassicarpa and Eucalyptus urophylla plantations after tree girdling. Plant and Soil 326, 123-135
1223   (2010).

1224   454   Zaccone, C., D'Orazio, V., Shotyk, W. & Miano, T. M. Chemical and spectroscopic
1225   investigation of porewater and aqueous extracts of corresponding peat samples throughout a bog
1226   core (Jura Mountains, Switzerland). Journal of Soils and Sediments 9, 443-456 (2009).

1227   455   Xu, X. & Kazuyuki, I. Soil acidification stimulates the emission of ethylene from temperate
1228   forest soils. Advances in Atmospheric Sciences 26, 1253-1261 (2009).

1229   456   Stutter, M. I., Langan, S. J. & Lumsdon, D. G. Vegetated buffer strips can lead to increased

1230 release of phosphorus to waters: a biogeochemical assessment of the mechanisms. Environmental science & technology 43, 1858-1863 (2009).

457 Sleutel, S. et al. Patterns of dissolved organic carbon and nitrogen fluxes in deciduous and coniferous forests under historic high nitrogen deposition. Biogeosciences 6, 2743-2758 (2009).

458 Roberts, P., Newsham, K. K., Bardgett, R. D., Farrar, J. F. & Jones, D. L. Vegetation cover regulates the quantity, quality and temporal dynamics of dissolved organic carbon and nitrogen in Antarctic soils. Polar Biology 32, 999-1008 (2009).

459 Fujii, K., Funakawa, S., Hayakawa, C., Sukartiningsih & Kosaki, T. Quantification of proton budgets in soils of cropland and adjacent forest in Thailand and Indonesia. Plant and Soil 316, 241-255 (2009).

460 Aanderud, Z. T. & Richards, J. H. Hydraulic redistribution may stimulate decomposition. Biogeochemistry 95, 323-333 (2009).

461 Prokushkin, A., Tokareva, I., Prokushkin, S., Abaimov, A. & Guggenberger, H. Fluxes of dissolved organic matter in larch forests in the cryolithozone of central Siberia. Russian Journal of Ecology 39, 151-159 (2008).

462 Menyailo, O. The effect of afforestation on mineralization of soil organic matter. Russian Journal of Ecology 39, 21-25 (2008).

463 Fiedler, S. et al. Particulate organic carbon (POC) in relation to other pore water carbon fractions in drained and rewetted fens in Southern Germany. Biogeosciences 5, 1615-1623 (2008).

464 Fellman, J. B., D'Amore, D. V., Hood, E. & Boone, R. D. Fluorescence characteristics and biodegradability of dissolved organic matter in forest and wetland soils from coastal temperate watersheds in southeast Alaska. Biogeochemistry 88, 169-184 (2008).

465 Åkerblom, S. et al. Partitioning of Hg between solid and dissolved organic matter in the humus layer of boreal forests. Water, air, and soil pollution 189, 239-252 (2008).

466 Zambrosi, F. C. B., Alleoni, L. R. F. & Caires, E. F. Nutrient concentration in soil water extracts and soybean nutrition in response to lime and gypsum applications to an acid Oxisol under no-till system. Nutrient Cycling in Agroecosystems 79, 169-179 (2007).

467 Zalamea, M., González, G., Ping, C.-L. & Michaelson, G. Soil organic matter dynamics under decaying wood in a subtropical wet forest: effect of tree species and decay stage. Plant and Soil 296, 173-185 (2007).

468 Wickland, K. P., Neff, J. C. & Aiken, G. R. Dissolved organic carbon in Alaskan boreal forest: Sources, chemical characteristics, and biodegradability. Ecosystems 10, 1323-1340 (2007).

469 Ward, S. E., Bardgett, R. D., McNamara, N. P., Adamson, J. K. & Ostle, N. J. Long-term consequences of grazing and burning on northern peatland carbon dynamics. Ecosystems 10, 1069-1083 (2007).

470 Vink, S., Ford, P., Bormans, M., Kelly, C. & Turley, C. Contrasting nutrient exports from a forested and an agricultural catchment in south-eastern Australia. Biogeochemistry 84, 247-264 (2007).

471 Peichl, M. et al. Concentrations and fluxes of dissolved organic carbon in an age-sequence of white pine forests in Southern Ontario, Canada. Biogeochemistry 86, 1-17 (2007).

472 Park, J.-H., Day, T. A., Strauss, S. & Ruhland, C. T. Biogeochemical pools and fluxes of carbon and nitrogen in a maritime tundra near penguin colonies along the Antarctic Peninsula. Polar Biology 30, 199-207 (2007).

1274   473   Pampura, T., Groenenberg, J., Lofts, S. & Priputina, I. Validation of transfer functions predicting
1275   Cd and Pb free metal ion activity in soil solution as a function of soil characteristics and reactive
1276   metal content. Water, air, and soil pollution 184, 217-234 (2007).

1277   474   Ngao, J., Longdoz, B., Granier, A. & Epron, D. Estimation of autotrophic and heterotrophic
1278   components of soil respiration by trenching is sensitive to corrections for root decomposition
1279   and changes in soil water content. Plant and soil 301, 99-110 (2007).

1280   475   Montaño, N. M., García-Oliva, F. & Jaramillo, V. J. Dissolved organic carbon affects soil
1281   microbial activity and nitrogen dynamics in a Mexican tropical deciduous forest. Plant and Soil
1282   295, 265-277 (2007).

1283   476   McGee, G. G., Mitchell, M. J., Leopold, D. J. & Raynal, D. J. Comparison of soil nutrient fluxes
1284   from tree-fall gap zones of an old-growth northern hardwood forest1. The Journal of the Torrey
1285   Botanical Society 134, 269-280 (2007).

1286   477   Giesler, R. et al. Production of dissolved organic carbon and low-molecular weight organic acids
1287   in soil solution driven by recent tree photosynthate. Biogeochemistry 84, 1-12 (2007).

1288   478   Vinther, F. P., Hansen, E. M. & Eriksen, J. Leaching of soil organic carbon and nitrogen in sandy
1289   soils after cultivating grass-clover swards. Biology and Fertility of Soils 43, 12-19 (2006).

1290   479   Tao, S., Xu, F., Liu, W., Cui, Y. & Coveney, R. M. A chemical extraction method for mimicking
1291   bioavailability of polycyclic aromatic hydrocarbons to wheat grown in soils containing various
1292   amounts of organic matter. Environmental science & technology 40, 2219-2224 (2006).

1293   480   Marchand, C., Albéric, P., Lallier-Vergès, E. & Baltzer, F. Distribution and characteristics of
1294   dissolved organic matter in mangrove sediment pore waters along the coastline of French
1295   Guiana. Biogeochemistry 81, 59-75 (2006).

1296   481   Lee, R. Y. & Joye, S. B. Seasonal patterns of nitrogen fixation and denitrification in oceanic
1297   mangrove habitats. Marine Ecology Progress Series 307, 127-141 (2006).

1298   482   Jones, D. L. & Willett, V. B. Experimental evaluation of methods to quantify dissolved organic
1299   nitrogen (DON) and dissolved organic carbon (DOC) in soil. Soil Biology and biochemistry 38,
1300   991-999 (2006).

1301   483   Fröberg, M., Berggren, D., Bergkvist, B., Bryant, C. & Mulder, J. Concentration and fluxes of
1302   dissolved organic carbon (DOC) in three Norway spruce stands along a climatic gradient in
1303   Sweden. Biogeochemistry 77, 1-23 (2006).

1304   484   Brenner, R. E., Boone, R. D., Jones, J. B., Lajtha, K. & Ruess, R. W. Successional and physical
1305   controls on the retention of nitrogen in an undisturbed boreal forest ecosystem. Oecologia 148,
1306   602-611 (2006).

1307   485   Asano, Y., Compton, J. E. & Church, M. R. Hydrologic flowpaths influence inorganic and
1308   organic nutrient leaching in a forest soil. Biogeochemistry 81, 191-204 (2006).

1309   486   Aitkenhead-Peterson, J. A. et al. Linking foliar chemistry to forest floor solid and solution phase
1310   organic C and N in Picea abies [L.] Karst stands in northern Bohemia. Plant and soil 283,
1311   187-201 (2006).

1312   487   Weintraub, M. N. & Schimel, J. P. The seasonal dynamics of amino acids and other nutrients in
1313   Alaskan Arctic tundra soils. Biogeochemistry 73, 359-380 (2005).

1314   488   Schwendenmann, L. & Veldkamp, E. The role of dissolved organic carbon, dissolved organic
1315   nitrogen, and dissolved inorganic nitrogen in a tropical wet forest ecosystem. Ecosystems 8,
1316   339-351 (2005).

1317   489   Schulze, W. X. et al. A proteomic fingerprint of dissolved organic carbon and of soil particles.

1318   Oecologia 142, 335-343 (2005).

1319   490   Opsahl, S. P. Organic carbon composition and oxygen metabolism across a gradient of
1320   seasonally inundated limesink and riparian wetlands in the southeast Coastal Plain, USA.
1321   Biogeochemistry 76, 47-68 (2005).

1322   491   Kaiser, K. & Guggenberger, G. Dissolved organic sulphur in soil water under Pinus sylvestris L.
1323   and Fagus sylvatica L. stands in northeastern Bavaria, Germany variations with seasons and soil
1324   depth. Biogeochemistry 72, 337-364 (2005).

1325   492   Fröberg, M., Kleja, D. B., Bergkvist, B., Tipping, E. & Mulder, J. Dissolved organic carbon
1326   leaching from a coniferous forest floor--a field manipulation experiment. Biogeochemistry 75,
1327   271-287 (2005).

1328   493   Fang, C. & Moncrieff, J. B. The variation of soil microbial respiration with depth in relation to
1329   soil carbon composition. Plant and Soil 268, 243-253 (2005).

1330   494   Lu, Y., Watanabe, A. & Kimura, M. Contribution of plant photosynthates to dissolved organic
1331   carbon in a flooded rice soil. Biogeochemistry 71, 1-15 (2004).

1332   495   Cory, R., Green, S. & Pregitzer, K. Dissolved organic matter concentration and composition in
1333   the forests and streams of Olympic National Park, WA. Biogeochemistry 67, 269-288 (2004).

1334   496   Ciglasch, H., Lilienfein, J., Kaiser, K. & Wilcke, W. Dissolved organic matter under native
1335   Cerrado and Pinus caribaea plantations in the Brazilian savanna. Biogeochemistry 67, 157-182
1336   (2004).

1337   497   Bohlen, P. J., Pelletier, D. M., Groffman, P. M., Fahey, T. J. & Fisk, M. C. Influence of
1338   earthworm invasion on redistribution and retention of soil carbon and nitrogen in northern
1339   temperate forests. Ecosystems 7, 13-27 (2004).

1340   498   Lindroos, A.-J., Brügger, T., Derome, J. & Derome, K. The weathering of mineral soil by natural
1341   soil solutions. Water, Air, and Soil Pollution 149, 269-279 (2003).

1342   499   Yu, Z. et al. Contribution of amino compounds to dissolved organic nitrogen in forest soils.
1343   Biogeochemistry 61, 173-198 (2002).

1344   500   Ross, D. et al. Afforestation of pastures with Pinus radiata influences soil carbon and nitrogen
1345   pools and mineralisation and microbial properties. Soil Research 40, 1303-1318 (2002).

1346   501   Qualls, R., Haines, B., Swank, W. & Tyler, S. Retention of soluble organic nutrients by a
1347   forested ecosystem. Biogeochemistry 61, 135-171 (2002).

1348   502   Menyailo, O. V., Hungate, B. A. & Zech, W. Tree species mediated soil chemical changes in a
1349   Siberian artificial afforestation experiment. Plant and Soil 242, 171-182 (2002).

1350   503   Jacinthe, P.-A., Dick, W. & Owens, L. Overwinter soil denitrification activity and mineral
1351   nitrogen pools as affected by management practices. Biology and fertility of soils 36, 1-9
1352   (2002).

1353   504   Solinger, S., Kalbitz, K. & Matzner, E. Controls on the dynamics of dissolved organic carbon
1354   and nitrogen in a Central European deciduous forest. Biogeochemistry 55, 327-349 (2001).

1355   505   Ross, D. J., Scott, N. A., Tate, K. R., Rodda, N. J. & Townsend, J. A. Root effects on soil carbon
1356   and nitrogen cycling in a Pinus radiata D. Don plantation on a coastal sand. Soil Research 39,
1357   1027-1039 (2001).

1358   506   Fitzhugh, R. D. et al. Effects of soil freezing disturbance on soil solution nitrogen, phosphorus,
1359   and carbon chemistry in a northern hardwood ecosystem. Biogeochemistry 56, 215-238 (2001).

1360   507   Zeller, V., Bahn, M., Aichner, M. & Tappeiner, U. Impact of land-use change on nitrogen
1361   mineralization in subalpine grasslands in the Southern Alps. Biology and Fertility of Soils 31,

1362 441-448 (2000).

508 McDowell, W. H. Internal nutrient fluxes in a Puerto Rican rain forest. Journal of Tropical Ecology 14, 521-536 (1998).

509 Johnson, C. E., Driscoll, C. T., Siccama, T. G. & Likens, G. E. Element fluxes and landscape position in a northern hardwood forest watershed ecosystem. Ecosystems 3, 159-184 (2000).

510 Markewitz, D. & Richter, D. D. The bio in aluminum and silicon geochemistry. Biogeochemistry 42, 235-252 (1998).

511 Zabowski, D., Rygiewicz, P. & Skinner, M. Site disturbance effects on a clay soil under radiata pine: I. Soil solutions and clay mineral stability. Plant and soil 186, 343-351 (1996).

512 Dai, K. O. H., David, M. B. & Vance, G. F. Characterization of solid and dissolved carbon in a spruce-fir Spodosol. Biogeochemistry 35, 339-365 (1996).

513 Schaaf, W. Effects of Mg (OH) 2-fertilization on nutrient cycling in a heavily damaged Norway spruce ecosystem (NE Bavaria/FRG). Plant and Soil 168, 505-511 (1995).

514 贾韦德. Impacts of Different Land Uses on Carbon Fluxes from Subtropical Soils in Central China: Implications for Carbon Sequestration, 华中农业大学, (2009).

515 Zhao, R., He, M., Jiang, C. & Liu, F. Soil microbial stoichiometry and community structure responses to long-term natural forest conversion to plantations in a subtropical region. Environmental Science and Pollution Research 29, 27560-27570 (2022).

516 Zhang, L. et al. Alpine meadow degradation depresses soil nitrogen fixation by regulating plant functional groups and diazotrophic community composition. Plant and Soil, 1-17 (2022).

517 Yang, R. et al. The content, composition, and influencing factors of organic carbon in the sediments of two types of constructed wetlands. Environmental Science and Pollution Research 28, 49206-49219 (2021).

518 Yang, H., Xie, Y., Zhu, T. & Zhou, M. Reduced organic carbon content during the evolvement of calcareous soils in karst region. Forests 12, 221 (2021).

519 Xiao, Y., Huang, Z., Li, Y., Ling, Y. & Xiao, H. Dynamics variation of soil labile organic carbon fractions in different wetland types of dongting lake under seasonal water level fluctuation. Sustainability 13, 13836 (2021).

520 Shannon, V., Vanguelova, E., Morison, J., Shaw, L. & Clark, J. The contribution of deadwood to soil carbon dynamics in contrasting temperate forest ecosystems. European Journal of Forest Research 141, 241-252 (2022).

521 Na, M., Sun, X., Zhang, Y., Sun, Z. & Rousk, J. Higher stand densities can promote soil carbon storage after conversion of temperate mixed natural forests to larch plantations. European Journal of Forest Research 140, 373-386 (2021).

522 Lynn, T. M. et al. Effect of land use on soil properties, microbial abundance and diversity of four different crop lands in central Myanmar. 3 Biotech 11, 154 (2021).

523 Liu, T., Peng, D., Tan, Z., Guo, J. & Zhang, Y. Effects of stand density on soil respiration and labile organic carbon in different aged Larix principis-rupprechtii plantations. Ecological Processes 10, 1-15 (2021).

524 Liu, M., Li, P., Liu, M., Wang, J. & Chang, Q. The trend of soil organic carbon fractions related to the successions of different vegetation types on the tableland of the Loess Plateau of China. Journal of Soils and Sediments 21, 203-214 (2021).

525 Kurganova, I., Telesnina, V., Lopes de Gerenyu, V., Lichko, V. & Karavanova, E. The dynamics of carbon pools and biological activity of retic albic podzols in southern taiga during the

1406   postagrogenic evolution. Eurasian Soil Science 54, 337-351 (2021).

1407 526 Fan, S. et al. Variations in soil enzyme activities and microbial communities along an altitudinal
1408   gradient on the eastern Qinghai–Tibetan plateau. Forests 12, 681 (2021).

1409 527 Čapek, P., Kasanke, C. P., Starke, R., Zhao, Q. & Tahovská, K. Biochemical inhibition of acid
1410   phosphatase activity in two mountain spruce forest soils. Biology and Fertility of Soils 57,
1411   991-1005 (2021).

1412 528 Xiao, S. et al. Soil organic carbon sequestration and active carbon component changes following
1413   different vegetation restoration ages on severely eroded red soils in subtropical China. Forests
1414   11, 1304 (2020).

1415 529 Xu, Z. et al. Plant functional traits determine latitudinal variations in soil microbial function:
1416   evidence from forests in China. Biogeosciences 16, 3333-3349 (2019).

1417 530 Hui-Juan, X. et al. Relative importance of urban and non-urban land-use types for potential
1418   denitrification derived N2O: insights from a regional study. Earth and Environmental Science
1419   Transactions of the Royal Society of Edinburgh 109, 453-460 (2018).

1420 531 Sokołowska, J., Józefowska, A., Woźnica, K. & Zaleski, T. Interrelationship between soil depth
1421   and soil properties of Pieniny National Park forest (Poland). Journal of Mountain Science 16,
1422   1534-1545 (2019).

1423 532 Gerzabek, M. H. et al. Agriculture changes soil properties on the Galápagos Islands–two case
1424   studies. Soil Research 57, 201-214 (2019).

1425 533 Wei, H. et al. Variation in soil methane fluxes and comparison between two forests in China.
1426   Forests 9, 204 (2018).

1427 534 Huo, L. et al. Effect of wetland reclamation on soil organic carbon stability in peat mire soil
1428   around Xingkai Lake in Northeast China. Chinese Geographical Science 28, 325-336 (2018).

1429 535 Jiang, Q., Xu, Z., Hao, Y. & Dong, H. Dynamics of soil labile carbon and nitrogen pools in
1430   riparian zone of Wyaralong Dam in Southeast Queensland, Australia. Journal of Soils and
1431   Sediments 17, 1030-1044 (2017).

1432 536 Che, R. et al. Increase in ammonia-oxidizing microbe abundance during degradation of alpine
1433   meadows may lead to greater soil nitrogen loss. Biogeochemistry 136, 341-352 (2017).

1434 537 Bonnett, S. A. F., Maltby, E. & Freeman, C. Hydrological legacy determines the type of enzyme
1435   inhibition in a peatlands chronosequence. Scientific Reports 7, 9948 (2017).

1436 538 Song, H. et al. Changing roles of ammonia-oxidizing bacteria and archaea in a continuously
1437   acidifying soil caused by over-fertilization with nitrogen. Environmental Science and Pollution
1438   Research 23, 11964-11974 (2016).

1439 539 Gao, S.-J. et al. Spectroscopic characteristics of dissolved organic matter in afforestation forest
1440   soil of Miyun District, Beijing. Journal of analytical methods in chemistry 2016, 1480857
1441   (2016).

1442 540 Jia, G.-M., Zhang, B.-L., Niu, J.-T., Wang, L.-M. & Chen, F.-Q. Soil labile organic carbon
1443   fractions in rhizosphere soil in citrus plantations in the Three Gorges Reservoir Area.
1444   Agroforestry systems 89, 1097-1105 (2015).

1445 541 Cusack, D. F., Lee, J. K., McCleery, T. L. & LeCroy, C. S. Exotic grasses and nitrate enrichment
1446   alter soil carbon cycling along an urban–rural tropical forest gradient. Global change biology 21,
1447   4481-4496 (2015).

1448 542 Wang, Q., Xiao, F., Zhang, F. & Wang, S. Labile soil organic carbon and microbial activity in
1449   three subtropical plantations. Forestry 86, 569-574 (2013).

1450 543 Almagro, M., Querejeta, J. I., Boix-Fayos, C. & Mart ńez-Mena, M. Links between vegetation
1451 patterns, soil C and N pools and respiration rate under three different land uses in a dry
1452 Mediterranean ecosystem. Journal of Soils and Sediments 13, 641-653 (2013).

1453 544 Song, Y. et al. Changes in labile organic carbon fractions and soil enzyme activities after
1454 marshland reclamation and restoration in the Sanjiang Plain in Northeast China. Environmental
1455 management 50, 418-426 (2012).

1456 545 Potthast, K., Hamer, U. & Makeschin, F. Land-use change in a tropical mountain rainforest
1457 region of southern Ecuador affects soil microorganisms and nutrient cycling. Biogeochemistry
1458 111, 151-167 (2012).

1459 546 Zhang, G. Changes of soil labile organic carbon in different land uses in Sanjiang Plain,
1460 Heilongjiang Province. Chinese Geographical Science 20, 139-143 (2010).

1461 547 Sch üz, K., Kandeler, E., Nagel, P., Scheu, S. & Ruess, L. Functional microbial community
1462 response to nutrient pulses by artificial groundwater recharge practice in surface soils and
1463 subsoils. FEMS microbiology ecology 72, 445-455 (2010).

1464 548 Bárta, J., Melichová, T., Vaněk, D., Picek, T. & Šantrůčková, H. Effect of pH and dissolved
1465 organic matter on the abundance of nirK and nirS denitrifiers in spruce forest soil.
1466 Biogeochemistry 101, 123-132 (2010).

1467 549 Monta ño, N. M., Sandoval-P érez, A. L., Garc á-Oliva, F., Larsen, J. & Gavito, M. E. Microbial
1468 activity in contrasting conditions of soil C and N availability in a tropical dry forest. Journal of
1469 tropical ecology 25, 401-413 (2009).

1470 550 Zou, J. & Osborne, B. Spatially related sampling uncertainty in the assessment of labile soil
1471 carbon and nitrogen in an Irish forest plantation. Applied Sciences 11, 2139 (2021).

1472 551 Zhang, X. et al. Soil profile rather than reclamation time drives the mudflat soil microbial
1473 community in the wheat-maize rotation system of Nantong, China. Journal of Soils and
1474 Sediments 21, 1672-1687 (2021).

1475 552 Zhang, W. et al. Soil water content, carbon, and nitrogen determine the abundances of
1476 methanogens, methanotrophs, and methane emission in the Zoige alpine wetland. Journal of
1477 Soils and Sediments, 1-12 (2022).

1478 553 Wan Mohd Zamri, W. M. I. et al. Assessment of Aqueous Extraction Methods on Extractable
1479 Organic Matter and Hydrophobic/Hydrophilic Fractions of Virgin Forest Soils. Molecules 26,
1480 2480 (2021).

1481 554 Yao, L. et al. Variations of soil organic matters and plant cuticular waxes along an altitude
1482 gradient in Qinghai-Tibet Plateau. Plant and Soil 458, 41-58 (2021).

1483 555 Xu, J., Han, C., Jiang, Y. & Zhong, W. Spatial distribution and co-occurrence of aerobic
1484 ammonia oxidation and anaerobic ammonium oxidation activities in the water-soil interface,
1485 bulk, and rhizosphere regions of paddy soil. Plant and Soil 466, 557-568 (2021).

1486 556 Škerlep, M. et al. Spruce forest afforestation leading to increased Fe mobilization from soils.
1487 Biogeochemistry, 1-18 (2022).

1488 557 Rupp, H., Tauchnitz, N. & Meissner, R. The effects of soil drying out and rewetting on nitrogen
1489 and carbon leaching—results of a long-term lysimeter experiment. Water 13, 2601 (2021).

1490 558 Kupka, D., Kania, M. & Gruba, P. The proximity of a highway increases CO_2 respiration in
1491 forest soil and decreases the stability of soil organic matter. Scientific Reports 11, 21605 (2021).

1492 559 Jeong, Y.-J. et al. Land use types with different fertilization management affected isotope ratios
1493 of bulk and water-extractable C and N of soils in an intensive agricultural area. Journal of Soils

1494   and Sediments, 1-14 (2022).

1495 560 Freppaz, M. et al. Characterization of organic-rich mineral debris revealed by rapid glacier
1496   retreat, Indren Glacier, European Alps. Journal of Mountain Science 18, 1521-1536 (2021).

1497 561 Farrell, M. & Prober, S. M. Keystone perennial grassland species control soil nitrogen flows.
1498   Ecosystems 24, 1500-1515 (2021).

1499 562 Chibuike, G., Burkitt, L., Bretherton, M., Singh, R. & Bishop, P. Dissolved organic carbon
1500   concentration and denitrification capacity of a New Zealand hill country soil after forage crop
1501   establishment. Earth Systems and Environment 5, 419-432 (2021).

1502 563 Álvarez-López, V. et al. Evidence for nickel mobilisation in rhizosphere soils of Ni
1503   hyperaccumulator Odontarrhena serpyllifolia. Plant and Soil 464, 89-107 (2021).

1504 564 Zhao, D. et al. Effects of contemporary land use types and conversions from wetland to paddy
1505   field or dry land on soil organic carbon fractions. Sustainability 12, 2094 (2020).

1506 565 Wu, X. et al. Soil organic matter dynamics as affected by land use change from rice paddy to
1507   wetland. Wetlands 40, 2199-2207 (2020).

1508 566 Wasak, K., Klimek, B. & Drewnik, M. Rapid effects of windfall on soil microbial activity and
1509   substrate utilization patterns in the forest belt in the Tatra Mountains. Journal of Soils and
1510   Sediments 20, 801-815 (2020).

1511 567 Maslov, M. N. & Maslova, O. A. Temperate peatlands use-management effects on seasonal
1512   patterns of soil microbial activity and nitrogen availability. Catena 190, 104548 (2020).

1513 568 McMillan, R., Quideau, S., MacKenzie, M. & Biryukova, O. Nitrogen mineralization and
1514   microbial activity in oil sands reclaimed boreal forest soils. Journal of environmental quality 36,
1515   1470-1478 (2007).

1516 569 Sackett, T. E., Smith, S. M. & Basiliko, N. Indirect and direct effects of exotic earthworms on
1517   soil nutrient and carbon pools in North American temperate forests. Soil Biology and
1518   Biochemistry 57, 459-467 (2013).

1519 570 Zhang, L. et al. Infrared spectroscopy estimation methods for water-dissolved carbon and amino
1520   sugars in diverse Canadian agricultural soils. Canadian Journal of Soil Science 98, 484-499
1521   (2018).

1522 571 Moore, T. Dissolved organic carbon in a northern boreal landscape. Global Biogeochemical
1523   Cycles 17 (2003).

1524 572 Lim, S.-S. et al. Soil organic carbon stocks in three Canadian agroforestry systems: From
1525   surface organic to deeper mineral soils. Forest ecology and management 417, 103-109 (2018).

1526 573 Diochon, A., Gregorich, E. & Tarnocai, C. Evaluating the quantity and biodegradability of soil
1527   organic matter in some Canadian Turbic Cryosols. Geoderma 202, 82-87 (2013).

1528 574 Oiffer, L. & Siciliano, S. D. Methyl mercury production and loss in Arctic soil. Science of the
1529   total environment 407, 1691-1700 (2009).

1530 575 Löfgren, S. & Zetterberg, T. Decreased DOC concentrations in soil water in forested areas in
1531   southern Sweden during 1987–2008. Science of the Total Environment 409, 1916-1926 (2011).

1532 576 Kerr, J. G. & Eimers, M. C. Decreasing soil water Ca2+ reduces DOC adsorption in mineral
1533   soils: Implications for long-term DOC trends in an upland forested catchment in southern
1534   Ontario, Canada. Science of the Total Environment 427, 298-307 (2012).

1535 577 Ulanowski, T. & Branfireun, B. Small-scale variability in peatland pore-water biogeochemistry,
1536   Hudson Bay Lowland, Canada. Science of the Total Environment 454, 211-218 (2013).

1537 578 Edwards, K. A. & Jefferies, R. L. Inter-annual and seasonal dynamics of soil microbial biomass

and nutrients in wet and dry low-Arctic sedge meadows. Soil Biology and Biochemistry 57, 83-90 (2013).

579 Xu, W. et al. Deepened snow enhances gross nitrogen cycling among Pan-Arctic tundra soils during both winter and summer. Soil Biology and Biochemistry 160, 108356 (2021).

580 Enanga, E., Creed, I., Casson, N. & Beall, F. Summer storms trigger soil N2O efflux episodes in forested catchments. Journal of Geophysical Research: Biogeosciences 121, 95-108 (2016).

581 Ota, M. et al. Could cryoturbic diapirs be key for understanding ecological feedbacks to climate change in high arctic polar deserts? Journal of Geophysical Research: Biogeosciences 125, e2019JG005263 (2020).

582 Vogt, J., Wu, J., Altdorff, D., Le, T. B. & Gong, Y. Nitrous oxide fluxes of a boreal abandoned pasture do not significantly differ from an adjacent natural bog despite distinct environmental conditions. Science of The Total Environment 714, 136648 (2020).

583 Dinsmore, K. J., Skiba, U. M., Billett, M. F., Rees, R. M. & Drewer, J. Spatial and temporal variability in CH4 and N2O fluxes from a Scottish ombrotrophic peatland: Implications for modelling and up-scaling. Soil Biology and Biochemistry 41, 1315-1323 (2009).

584 Van Eynde, E. et al. Soil zinc fertilisation does not increase maize yields but improves nutritional quality.   (2022).

585 Chaplot, V. & Cooper, M. Soil aggregate stability to predict organic carbon outputs from soils. Geoderma 243, 205-213 (2015).

586 Yang, N., Zou, D., Yang, M. & Lin, Z. Variations in soil microbial biomass carbon and soil dissolved organic carbon in the re-vegetation of hilly slopes with purple soil. PLoS One 11, e0166536 (2016).

587 Shao, X., Yang, W. & Wu, M. Seasonal dynamics of soil labile organic carbon and enzyme activities in relation to vegetation types in Hangzhou Bay tidal flat wetland. PLoS One 10, e0142677 (2015).

588 Fujii, K., Hartono, A., Funakawa, S., Uemura, M. & Kosaki, T. Fluxes of dissolved organic carbon in three tropical secondary forests developed on serpentine and mudstone. Geoderma 163, 119-126 (2011).

589 Saunders, T. J., McClain, M. E. & Llerena, C. A. The biogeochemistry of dissolved nitrogen, phosphorus, and organic carbon along terrestrial-aquatic flowpaths of a montane headwater catchment in the Peruvian Amazon. Hydrological Processes: An International Journal 20, 2549-2562 (2006).

590 Wu, H. et al. Modeling dissolved organic carbon in temperate forest soils: TRIPLEX-DOC model development and validation. Geoscientific Model Development 7, 867-881 (2014).

591 Mchunu, C. & Chaplot, V. Land degradation impact on soil carbon losses through water erosion and CO2 emissions. Geoderma 177, 72-79 (2012).

592 Wolka, K., Biazin, B., Martinsen, V. & Mulder, J. Soil organic carbon and associated soil properties in Enset (Ensete ventricosum Welw. Cheesman)-based homegardens in Ethiopia. Soil and Tillage Research 205, 104791 (2021).

593 Martinez-Mena, M., Lopez, J., Almagro, M., Boix-Fayos, C. & Albaladejo, J. Effect of water erosion and cultivation on the soil carbon stock in a semiarid area of South-East Spain. Soil and Tillage Research 99, 119-129 (2008).

594 Qiu, S. et al. Changes in soil carbon and nitrogen pools after shifting from conventional cereal to greenhouse vegetable production. Soil and Tillage Research 107, 80-87 (2010).

595 Rizinjirabake, F., Tenenbaum, D. E. & Pilesjö, P. Sources of soil dissolved organic carbon in a mixed agricultural and forested watershed in Rwanda. Catena 181, 104085 (2019).

596 Cacace, C. et al. Effects of different pioneer and exotic species on the changes of degraded soils. Scientific Reports 12, 18548 (2022).

597 Xu, X., Miao, H. & Chen, Z. The vertical distribution and their relationship of dissolved organic carbon and exchangeable metals in Chinese old-growth forest soils. African Journal of Agricultural Research 6, 998-1008 (2011).

598 Brucker, E., Kernchen, S. & Spohn, M. Release of phosphorus and silicon from minerals by soil microorganisms depends on the availability of organic carbon. Soil Biology and Biochemistry 143, 107737 (2020).

599 Ciganda, V. S. et al. Soil nitrous oxide emissions from grassland: Potential inhibitor effect of hippuric acid. Journal of Plant Nutrition and Soil Science 182, 40-47 (2019).

600 Ge, P., Da, L., Wang, W. & Xu, X. Seasonal dynamics of dissolved organic carbon, nitrogen and other nutrients in soil of Pinus massoniana stands after pine wilt disease disturbance. Journal of soil science and plant nutrition 14, 75-87 (2014).

601 Undurraga, P., Zagal, E., Sepúlveda, G. & Valderrama, N. Dissolved organic carbon and nitrogen in Andisol for six crop rotations with different soil management intensity. Chilean Journal of Agricultural Research 69, 445-454 (2009).

602 Gangloff, S., Stille, P., Pierret, M.-C., Weber, T. & Chabaux, F. Characterization and evolution of dissolved organic matter in acidic forest soil and its impact on the mobility of major and trace elements (case of the Strengbach watershed). Geochimica et Cosmochimica Acta 130, 21-41 (2014).

603 Oporto, C., Vandecasteele, C. & Smolders, E. Elevated cadmium concentrations in potato tubers due to irrigation with river water contaminated by mining in Potosí Bolivia. Journal of environmental quality 36, 1181-1186 (2007).

604 Couic, E. et al. The impact of ecological restoration on biogeochemical cycling and mercury mobilization in anoxic conditions on former mining sites in French Guiana. Microorganisms 9, 1702 (2021).

605 Parsapour, M. K., Kooch, Y., Hosseini, S. M. & Alavi, S. J. Litter and topsoil in Alnus subcordata plantation on former degraded natural forest land: a synthesis of age-sequence. Soil and Tillage Research 179, 1-10 (2018).

606 Dittman, J. A., Driscoll, C. T., Groffman, P. M. & Fahey, T. J. Dynamics of nitrogen and dissolved organic carbon at the Hubbard Brook Experimental Forest. Ecology 88, 1153-1166 (2007).

607 Rhoades, C. C. Soil Nitrogen Leaching in Logged Beetle-Killed Forests and Implications for Riparian Fuel Reduction. Journal of Environmental Quality 48, 305-313 (2019).

608 Rinklebe, J., Shaheen, S. M. & Yu, K. Release of As, Ba, Cd, Cu, Pb, and Sr under pre-definite redox conditions in different rice paddy soils originating from the USA and Asia. Geoderma 270, 21-32 (2016).

609 Schwaner, G. W. & Kelly, C. N. American chestnut soil carbon and nitrogen dynamics: Implications for ecosystem response following restoration. Pedobiologia 75, 24-33 (2019).

610 Patel, K. F. et al. Soil carbon and nitrogen responses to snow removal and concrete frost in a northern coniferous forest. Canadian Journal of Soil Science 98, 436-447 (2018).

611 Norton, U. et al. Moisture pulses, trace gas emissions and soil C and N in cheatgrass and native

1626 grass-dominated sagebrush-steppe in Wyoming, USA. Soil Biology and Biochemistry 40,
1627 1421-1431 (2008).

1628 612 Löfgren, S., Gustafsson, J. P. & Bringmark, L. Decreasing DOC trends in soil solution along the
1629 hillslopes at two IM sites in southern Sweden—Geochemical modeling of organic matter
1630 solubility during acidification recovery. Science of the Total Environment 409, 201-210 (2010).

1631 613 Burns, K. N. et al. Vineyard soil bacterial diversity and composition revealed by 16S rRNA
1632 genes: differentiation by geographic features. Soil Biology and Biochemistry 91, 232-247
1633 (2015).

1634 614 Weintraub, M. N., Scott-Denton, L. E., Schmidt, S. K. & Monson, R. K. The effects of tree
1635 rhizodeposition on soil exoenzyme activity, dissolved organic carbon, and nutrient availability in
1636 a subalpine forest ecosystem. Oecologia 154, 327-338 (2007).

1637 615 Chambers, L. G. et al. Biogeochemical effects of simulated sea level rise on carbon loss in an
1638 Everglades mangrove peat soil. Hydrobiologia 726, 195-211 (2014).

1639 616 Pschenyckyj, C. M., Clark, J. M., Shaw, L. J., Griffiths, R. I. & Evans, C. D. Effects of acidity
1640 on dissolved organic carbon in organic soil extracts, pore water and surface litters. Science of
1641 the Total Environment 703, 135585 (2020).

1642 617 Spears, J. D., Holub, S., Harmon, M. & Lajtha, K. The influence of decomposing logs on soil
1643 biology and nutrient cycling in an old-growth mixed coniferous forest in Oregon, USA.
1644 Canadian Journal of Forest Research 33, 2193-2201 (2003).

1645 618 Zheng, J. et al. A long-term hybrid poplar plantation on cropland reduces soil organic carbon
1646 mineralization and shifts microbial community abundance and composition. Applied Soil
1647 Ecology 111, 94-104 (2017).

1648 619 Zhao, M., Wang, M., Zhao, Y., Jiang, M. & Wang, G. Variations in concentration and carbon
1649 isotope composition of methanotroph biomarkers in sedge peatlands along the altitude gradient
1650 in the Changbai Mountain, China. Frontiers in Microbiology 13, 892430 (2022).

1651 620 Wardinski, K. M. et al. Water-soluble organic matter from soils at the terrestrial-Aquatic
1652 interface in Wetland-dominated landscapes. Journal of Geophysical Research: Biogeosciences
1653 127, e2022JG006994 (2022).

1654 621 Wang, H., Wu, J., Li, G., Yan, L. & Wei, X. Effects of rainfall frequency on soil labile carbon
1655 fractions in a wet meadow on the Qinghai-Tibet Plateau. Journal of Soils and Sediments 22,
1656 1489-1499 (2022).

1657 622 Morgalev, S. Y. et al. Fractionation of organic C, nutrients, metals and bacteria in peat porewater
1658 and ice after freezing and thawing. Environmental Science and Pollution Research 30, 823-836
1659 (2023).

1660 623 Pintaldi, E. et al. Snowbed communities and soil C and N dynamics during a four-year
1661 investigation in the NW-Italian Alps. Arctic, Antarctic, and Alpine Research 54, 368-385 (2022).

1662 624 Du, W., Wang, D., Wu, X., Zhao, L. & Zang, S. Effects of Forest Types on SOC and DOC in the
1663 Permafrost Region of the Daxing'anling Mountains. Processes 10, 1293 (2022).

1664 625 Zhang, F. et al. Analysis of UV–VIS spectral characteristics and content estimation of soil DOM
1665 under mulching practices. Ecological Indicators 138, 108869 (2022).

1666 626 Yang, Y. et al. Variations in the composition of tea leaves and soil microbial community. Biology
1667 and Fertility of Soils 58, 167-179 (2022).

1668 627 Zhang, R. et al. Changes in the characteristics of soil dissolved organic matter over time since
1669 inter-planting with white clover (Trifolium repens L.) in apple orchards on the Loess Plateau in

China. Plant and Soil, 1-18 (2022).

628 Darusman, T., Murdiyarso, D., Impron, I., Chaniago, I. A. & Lestari, D. P. Carbon dynamics in rewetted tropical peat swamp forests. Climate 10, 35 (2022).

629 Aaltonen, H. et al. The effects of glucose addition and water table manipulation on peat quality of drained peatland forests with different management practices. Soil Science Society of America Journal 86, 1625-1638 (2022).

630 Xiang, F. et al. Black soldier fly larvae vermicompost alters soil biochemistry and bacterial community composition. Applied Microbiology and Biotechnology 106, 4315-4328 (2022).

631 Garcá, P. E., Mansilla Ferro, C. F. & Diéguez, M. C. Characterisation of dissolved organic matter from temperate wetlands: field dynamics and photoreactivity changes driven by natural inputs and diagenesis along the hydroperiod. New Zealand Journal of Marine and Freshwater Research 57, 480-494 (2023).

632 Xiong, X. et al. Carbon and nitrogen availability drives seasonal variation in soil microbial communities along an elevation gradient. Forests 13, 1657 (2022).

633 Xu, W., Elberling, B. & Ambus, P. L. Pyrogenic organic matter as a nitrogen source to microbes and plants following fire in an Arctic heath tundra. Soil Biology and Biochemistry 170, 108699 (2022).

634 Li, X. et al. Switchgrass cropping systems affect soil carbon and nitrogen and microbial diversity and activity on marginal lands. GCB Bioenergy 14(8), 918–940 (2022).

635 Gong, S. et al. Effect of stand age on the temporal dynamics of soil active carbon and nitrogen in Chinese cypress artificial forests. Soil Science and Plant Nutrition 68, 64-71 (2022).

636 Prijac, A., Gandois, L., Jeanneau, L., Taillardat, P. & Garneau, M. Dissolved organic matter concentration and composition discontinuity at the peat–pool interface in a boreal peatland. Biogeosciences 19, 4571-4588 (2022).

637 Moens, C., Dondeyne, S., Panagea, I. & Smolders, E. Depth profile of colloidal iron in the pore water of an Albic Podzol. European Journal of Soil Science 73, e13305 (2022).

638 Friedl, J. et al. Amplitude and frequency of wetting and drying cycles drive N2 and N2O emissions from a subtropical pasture. Biology and Fertility of Soils 58, 593-605 (2022).

639 Huang, W.-H., Lin, T.-C., Huang, C.-M., Chen, T.-C. & Yeh, Y.-L. Copper distribution and binding affinity of size-fractioned humic substances taken from paddy soil and correlation with optical characteristics. Agronomy 12, 1689 (2022).

640 Rindt, O. et al. Biogeochemical dynamics during snowmelt and in summer in the Alps. Biogeochemistry 162, 257-266 (2023).

641 Zhao, R., He, M. & Liu, F. Differential linkages between soil respiration components and microbial community structures under long-term forest conversion. Journal of Soils and Sediments 22, 1252-1262 (2022).

642 Li, H., Yang, Y., Crabbe, M. J. C. & Chen, H. The Characteristics of Dissolved Organic Matter and Soil Microbial Communities in the Soils of Larix principis-rupprechtii Mayr. Plantations in the Qinling Mountains, China. Sustainability 14, 11968 (2022).

643 Leogrande, R. et al. Reclaimed water use in agriculture: effects on soil chemical and biological properties in a long-term irrigated citrus farm. Agronomy 12, 1317 (2022).

644 Behnke, M., Fellman, J. B., D'Amore, D. V., Gomez, S. & Spencer, R. From canopy to consumer: what makes and modifies terrestrial DOM in a temperate forest. Biogeochemistry 164, 185-205 (2023).

1714 645 Ricardo, S.-M. et al. Exploring dissolved organic carbon variations in a high elevation tropical
1715 peatland ecosystem: Cerro de la Muerte, Costa Rica. Frontiers in Water 3, 742780 (2022).

1716 646 Eder, A. et al. Pathways and composition of dissolved organic carbon in a small agricultural
1717 catchment during base flow conditions. Ecohydrology & Hydrobiology 22, 96-112 (2022).

1718 647 McFarland, J. W. et al. Mechanisms for retention of low molecular weight organic carbon varies
1719 with soil depth at a coastal prairie ecosystem. Soil Biology and Biochemistry 168, 108601
1720 (2022).

1721 648 Sokołowska, J., Józefowska, A. & Zaleski, T. Impact of natural forest succession on changes in
1722 soil organic carbon in the polish Carpathian mountains. Forests 13, 744 (2022).

1723 649 Zhang, L. et al. Composition characteristics of dissolved organic matter at the vegetation-soil
1724 interface under the influence of mining disturbances. Polish Journal of Environmental Studies
1725 31, 439-449 (2021).

1726 650 de Aguiar Santiago, F. L. et al. Rehabilitation promotes rapid recovery of arbuscular mycorrhizal
1727 fungi in iron mining areas. Pedobiologia 95, 150838 (2022).

1728 651 Guan, J. et al. Responses of soil active organic carbon fractions and enzyme activities to
1729 freeze-thaw cycles in Wetlands. Wetlands 42, 36 (2022).

1730 652 Yates, C. A. et al. Determining patterns in the composition of dissolved organic matter in fresh
1731 waters according to land use and management. Biogeochemistry 164, 143-162 (2023).

1732 653 Kaneko, S., Furusawa, H., Okamoto, T. & Hirano, Y. Dissolved Organic Matter (DOM) in a
1733 Warm-Temperate Forested Watershed—A Possibility of Ultraviolet Absorbance as an Indicator
1734 of DOM. Forests 13, 510 (2022).

1735 654 Fan, Q., Yang, Y., Geng, Y., Wu, Y. & Niu, Z. Biochemical composition and function of
1736 subalpine shrubland and meadow soil microbiomes in the Qilian Mountains, Qinghai–Tibetan
1737 plateau, China. PeerJ 10, e13188 (2022).

1738 655 Cui, J. et al. Correlations between dominant vegetation type and composition and diversity of
1739 soil bacterial communities in a subtropical forest. Soil Science Society of America Journal 86,
1740 1123-1137 (2022).

1741 656 Zhang, H., Zheng, X., Cai, Y. & Chang, S. X. Land-use change enhanced soc mineralization but
1742 did not significantly affect its storage in the surface layer. International Journal of
1743 Environmental Research and Public Health 19, 3020 (2022).

1744 657 Startsev, V. V., Yakovleva, E. V., Kutyavin, I. N. & Dymov, A. A. Fire impact on carbon pools
1745 and basic properties of retisols in native spruce forests of the European North and Central
1746 Siberia of Russia. Forests 13, 1135 (2022).

1747 658 Kobierski, M. & Banach-Szott, M. Organic matter in riverbank sediments and fluvisols from the
1748 flood zones of lower vistula river. Agronomy 12, 536 (2022).

1749 659 Cui, Q. et al. Response of soil carbon fractions and enzyme activities to mowing management
1750 on in a coastal wetland of the yellow river delta. Frontiers in Marine Science 9, 993181 (2022).

1751 660 Davis, C. J., Presley, D. R., Rivard, C. L., Griffin, J. J. & Tomlinson, P. J. Conservation systems
1752 influence on soil properties in pumpkin production. Soil Science Society of America Journal 86,
1753 435-449 (2022).

1754 661 Długosz, J. & Piotrowska-Długosz, A. Changes in carbon-degrading enzyme activities and
1755 microbial biomass content–The effect of soil depth and soil-forming processes. Applied Soil
1756 Ecology 180, 104629 (2022).

1757 662 Fujii, K., Funakawa, S. & Kosaki, T. Effects of forest management on soil acidification in cedar

plantation. Geoderma 424, 115967 (2022).

663   Glina, B. et al. Local weather conditions determine DOC production and losses from agricultural fen soils affected by open-pit lignite mining. Catena 211, 106012 (2022).

664   He, G. et al. Forest succession improves the complexity of soil microbial interaction and ecological stochasticity of community assembly: Evidence from Phoebe bournei-dominated forests in subtropical regions. Frontiers in Microbiology 13, 1021258 (2022).

665   He, Y. et al. Drivers of soil respiration and nitrogen mineralization change after litter management at a subtropical Chinese sweetgum tree plantation. Soil Use and Management 39, 92-103 (2023).

666   Hu, L., Li, Q., Yan, J., Liu, C. & Zhong, J. Vegetation restoration facilitates belowground microbial network complexity and recalcitrant soil organic carbon storage in southwest China karst region. Science of the Total Environment 820, 153137 (2022).

667   Kaba, M., Mesnage, V., Sakho, I., Faye, S. & Boussafir, M. Processes controlling the organic matter degradation in a tropical coastal wetland: Mboro, Senegal. Catena 217, 106419 (2022).

668   Kooch, Y., Ghorbanzadeh, N., Kuzyakov, Y., Praeg, N. & Ghaderi, E. Investigation of the effects of the conversion of forests and rangeland to cropland on fertility and soil functions in mountainous semi-arid landscape. Catena 210, 105951 (2022).

669   Li, C. et al. Soil dissolved carbon and nitrogen dynamics along a revegetation chronosequence of Caragana korshinskii plantations in the Loess hilly region of China. Catena 216, 106405 (2022).

670   Li, J. et al. Characteristics of soil carbon emissions and bacterial community composition in peatlands at different stages of vegetation succession. Science of the Total Environment 839, 156242 (2022).

671   Li, J., Sun, X., Li, M., Zou, J. & Bian, H. Effects of stand age and soil organic matter quality on soil bacterial and fungal community composition in Larix gmelinii plantations, Northeast China. Land Degradation & Development 33, 1249-1259 (2022).

672   Li, Y., Chen, J., Feng, H. & Siddique, K. H. Plastic mulching significantly improves soil enzyme and microbial activities without mitigating gaseous N emissions in winter wheat-summer maize rotations. Field Crops Research 286, 108630 (2022).

673   Liang, K. et al. Changes in quantity and quality of dissolved organic carbon in purple soil: Roles of land use and soil depth. Land Degradation & Development 34, 327-337 (2023).

674   Liu, S. et al. Seasonal freeze-thaw characteristics of soil carbon pools under different vegetation restoration types on the Longzhong Loess Plateau. Frontiers in Ecology and Evolution 10, 1019627 (2022).

675   Liu, X. et al. Spatial distribution of soil iron across different plant communities along a hydrological gradient in the Yellow River Estuary wetland. Frontiers in Ecology and Evolution 10, 979194 (2022).

676   Liu, Y. et al. Changes in soil microbial metabolic activity following long-term forest succession on the central Loess Plateau, China. Land Degradation & Development 34, 723-735 (2023).

677   Mohseni, N. & Hosseinzadeh, S. R. Soil erosion progression under rill and gully erosion processes and its effect on variations of mechanisms controlling C mineralization ratio. Ecohydrology & Hydrobiology 22, 370-378 (2022).

678   Nasonova, A., Levy, G. J., Rinot, O., Eshel, G. & Borisover, M. Organic matter in aqueous soil extracts: Prediction of compositional attributes from bulk soil mid-IR spectra using partial least

1802   square regressions. Geoderma 411, 115678 (2022).

1803   679   Ren, B. et al. Appraisal of different land use systems for heterotrophic respiration in a Karst
1804   landscape. Environmental Research 212, 113480 (2022).

1805   680   Wang, C., Xue, L. & Jiao, R. Stoichiometric imbalances and the dynamics of phosphatase
1806   activity and the abundance of phoC and phoD genes with the development of Cunninghamia
1807   lanceolata (Lamb.) Hook plantations. Applied Soil Ecology 173, 104373 (2022).

1808   681   Lei, B., Xu, Y., Tang, Y. & Hauptfleisch, K. Shifts in carbon stocks through soil profiles
1809   following management change in intensive agricultural systems. Agricultural Sciences 6,
1810   304-314 (2015).

1811   682   Liu, H. et al. Effects of the interaction between temperature and revegetation on the microbial
1812   degradation of soil dissolved organic matter (DOM)–A DOM incubation experiment. Geoderma
1813   337, 812-824 (2019).

1814   683   Wen-jun, Z. et al. Characteristics and influencing factors of soil dissolved organic carbon and
1815   nitrogen in a tropical seasonal rainforest in Xishuangbanna, Southwest China. Journal of Beijing
1816   Forestry University 38, 34-41 (2016).

1817   684   Yu-Lai, W., Chang-Ming, Y., Li-Min, Z. & Heng-Zhao, C. Spatial distribution and fluorescence
1818   properties of soil dissolved organic carbon across a riparian buffer wetland in Chongming Island,
1819   China. Pedosphere 25, 220-229 (2015).

1820   685   Liu, S. et al. The role of UV-B radiation and precipitation on straw decomposition and topsoil C
1821   turnover. Soil Biology and Biochemistry 77, 197-202 (2014).

1822   686   Yao, S., Qin, J., Peng, X. & Zhang, B. The effects of vegetation on restoration of physical
1823   stability of a severely degraded soil in China. Ecological Engineering 35, 723-734 (2009).

1824   687   Qiu, Q. et al. Effects of plant-derived dissolved organic matter (DOM) on soil CO2 and N2O
1825   emissions and soil carbon and nitrogen sequestrations. Applied Soil Ecology 96, 122-130
1826   (2015).

1827   688   Long, G.-Q., Jiang, Y.-J. & Sun, B. Seasonal and inter-annual variation of leaching of dissolved
1828   organic carbon and nitrogen under long-term manure application in an acidic clay soil in
1829   subtropical China. Soil and Tillage Research 146, 270-278 (2015).

1830   689   Liu, T., Liu, C., Zhang, W. & Tu, C. Concentrations and migration features of dissolved organic
1831   carbon in the soils of slope lands in Karst area. China Environmental Science 29, 248-253
1832   (2009).

1833   690   Zhang, J., Song, C. & Yang, W. Seasonal dynamics of dissolved organic carbon and its impact
1834   factors in the Doyeuxia augustifolia marsh soil. Acta Scientiae Circumstantiae 25, 1397-1402
1835   (2005).

1836   691   Xiao, Y., Huang, Z., Wu, H. & Lv, X. Compositions and contents of active organic carbon in
1837   different wetland soils in Sanjiang Plain, Northeast China. Acta Ecol Sin 23, 7625-7633 (2015).

1838   692   WANG, W., YANG, Y.-s., CHEN, G.-s., GUO, J.-f. & QIAN, W. Profile distribution and
1839   seasonal variation of soil dissolved organic carbon in natural Castanopsis fabric forest in
1840   subtropical China. Chinese Journal of Ecology 27, 924 (2008).

1841   693   Shu-fen, L., Yuan-chun, Y. & Sheng, H. Correlation between dissolved organic carbon and soil
1842   factors of the forest soil in southern of China. 浙江农林大学学报 20, 119-123 (2003).

1843   694   Lei, B., Fan, M., Chen, Q., Six, J. & Zhang, F. Conversion of wheat–maize to vegetable
1844   cropping systems changes soil organic matter characteristics. Soil Science Society of America
1845   Journal 74, 1320-1326 (2010).

1846 695 Lu, S. et al. Patterns and drivers of soil respiration and vegetation at different altitudes in
1847   Southern China. Applied Ecology & Environmental Research 17 (2019).

1848 696 Lin, C., Larsen, E., Grace, P. & Smith, J. in Soil solutions for a changing world: Proceedings of
1849   the 19th World Congress of Soil Science. 27-30 (International Union of Soil Sciences).

1850 697 Cookson, W. et al. Controls on soil nitrogen cycling and microbial community composition
1851   across land use and incubation temperature. Soil Biology and Biochemistry 39, 744-756 (2007).

1852 698 Mavi, M. S. Evaluation of extractants to quantify dissolved organic carbon and nitrogen in
1853   dissimilar soils. Journal of the Indian Society of Soil Science 66, 111-115 (2018).

1854 699 Kaiser, C. et al. Belowground carbon allocation by trees drives seasonal patterns of extracellular
1855   enzyme activities by altering microbial community composition in a beech forest soil. New
1856   Phytologist 187, 843-858 (2010).

1857 700 Vandenbruwane, J., De Neve, S., Qualls, R. G., Sleutel, S. & Hofman, G. Comparison of
1858   different isotherm models for dissolved organic carbon (DOC) and nitrogen (DON) sorption to
1859   mineral soil. Geoderma 139, 144-153 (2007).

1860 701 Filep, T., Kincses, I. & Nagy, P. Dissolved organic carbon (DOC) and dissolved organic nitrogen
1861   (DON) content of an arenosol as affected by liming in a pot experiment. Archives of Agronomy
1862   and Soil Science 49, 111-117 (2003).

1863 702 Novara, A. et al. Dynamics of soil organic carbon pools after agricultural abandonment.
1864   Geoderma 235, 191-198 (2014).

1865 703 Jaszczyński, J. The relationship between dissolved organic carbon and hydro-climatic factors in
1866   peat-muck soil. Journal of Water and Land Development (2015).

1867 704 Cox, L. et al. Effect of exogenous carbon on movement of simazine and 2, 4-D in soils. Soil
1868   science society of America journal 65, 1688-1695 (2001).

1869 705 Maxin, C. R. & Kögel-Knabner, I. Partitioning of polycyclic aromatic hydrocarbons (PAH) to
1870   water-soluble soil organic matter. European Journal of Soil Science 46, 193-204 (1995).

1871 706 Matschonat, G. & Vogt, R. Assessment of a laboratory method to obtain the equilibrium solution
1872   composition of forest soils. European journal of soil science 48, 545-552 (1997).

1873 707 Ludwig, B., Khanna, P. & Prenzel, J. Use of a coupled equilibrium model to describe the
1874   buffering of protons and hydroxyl ions in some acid soils. Zeitschrift für Pflanzenernährung und
1875   Bodenkunde 161, 547-554 (1998).

1876 708 Austnes, K. & Vestgarden, L. S. Prolonged frost increases release of C and N from a montane
1877   heathland soil in southern Norway. Soil Biology and Biochemistry 40, 2540-2546 (2008).

1878 709 Sowerby, A., Emmett, B., Williams, D., Beier, C. & Evans, C. The response of dissolved organic
1879   carbon (DOC) and the ecosystem carbon balance to experimental drought in a temperate
1880   shrubland. European Journal of Soil Science 61, 697-709 (2010).

1881 710 Hughes, S., Reynolds, B. & Roberts, J. The influence of land management on concentrations of
1882   dissolved organic carbon and its effects on the mobilization of aluminium and iron in podzol
1883   soils in Mid-Wales. Soil use and management 6, 137-145 (1990).

1884 711 McDowell, W. H. & Wood, T. Podzolization: soil processes control dissolved organic carbon
1885   concentrations in stream water. Soil Science 137, 23-32 (1984).

1886 712 Qualls, R. G. & Richardson, C. J. Factors controlling concentration, export, and decomposition
1887   of dissolved organic nutrients in the Everglades of Florida. Biogeochemistry 62, 197-229
1888   (2003).

1889 713 Yavitt, J. Carbon dynamics in Appalachian peatlands of west Virginia and western Maryland.

1890   Water, Air, and Soil Pollution 77, 271-290 (1994).

1891 714 Fröberg, M. et al. Low dissolved organic carbon input from fresh litter to deep mineral soils.
1892   Soil Science Society of America Journal 71, 347-354 (2007).

1893 715 Yang, G. et al. Responses of CO2 emission and pore water DOC concentration to soil warming
1894   and water table drawdown in Zoige Peatlands. Atmospheric Environment 152, 323-329 (2017).

1895 716 Ying, C., Shaoqiang, W., Jingyuan, W., Peichl, M. & Falahatar, S. Dissolved organic carbon
1896   dynamics and controls of planted slash pine forest soil in subtropical region in southern China.
1897   Journal of Resources and Ecology 4, 105-114 (2013).

1898 717 Pesántez, J., Mosquera, G. M., Crespo, P., Breuer, L. & Windhorst, D. Effect of land cover and
1899   hydro-meteorological controls on soil water DOC concentrations in a high-elevation tropical
1900   environment. Hydrological Processes 32, 2624-2635 (2018).

1901 718 Panneer Selvam, B., Laudon, H., Guillemette, F. & Berggren, M. Influence of soil frost on the
1902   character and degradability of dissolved organic carbon in boreal forest soils. Journal of
1903   Geophysical Research: Biogeosciences 121, 829-840 (2016).

1904 719 Andreasson, F., Bergkvist, B. & Bååth, E. Bioavailability of DOC in leachates, soil matrix
1905   solutions and soil water extracts from beech forest floors. Soil Biology and Biochemistry 41,
1906   1652-1658 (2009).

1907 720 Ågren, A. M., Haei, M., Blomkvist, P., Nilsson, M. B. & Laudon, H. Soil frost enhances stream
1908   dissolved organic carbon concentrations during episodic spring snow melt from boreal mires.
1909   Global Change Biology 18, 1895-1903 (2012).

1910 721 Raastad, I. A. & Mulder, J. Dissolved organic matter (DOM) in acid forest soils at Gådsjön
1911   (Sweden): natural variabilities and effects of increased input of nitrogen and of reversal of
1912   acidification. Water, air and soil pollution 114, 199 (1999).

1913 722 Shafiquzzaman, M. et al. Identification and characterization of dissolved organic matter sources
1914   in Kushiro river impacted by a wetland. Ecological engineering 70, 459-464 (2014).

1915 723 Kawahigashi, M., Sumida, H. & Yamamoto, K. Seasonal changes in organic compounds in soil
1916   solutions obtained from volcanic ash soils under different land uses. Geoderma 113, 381-396
1917   (2003).

1918 724 Funakawa, S., Hirai, H. & Kyuma, K. Soil-forming processes under natural forest north of
1919   Kyoto in relation to soil solution composition. Soil Science and Plant Nutrition 38, 101-112
1920   (1992).

1921 725 Stumpe, B. & Marschner, B. Dissolved organic carbon from sewage sludge and manure can
1922   affect estrogen sorption and mineralization in soils. Environmental Pollution 158, 148-154
1923   (2010).

1924 726 Macdonald, A., Murphy, D., Mahieu, N. & Fillery, I. Labile soil organic matter pools under a
1925   mixed grass/lucerne pasture and adjacent native bush in Western Australia. Soil Research 45,
1926   333-343 (2007).

1927 727 Camino-Serrano, M. et al. ORCHIDEE-SOM: modeling soil organic carbon (SOC) and
1928   dissolved organic carbon (DOC) dynamics along vertical soil profiles in Europe. Geoscientific
1929   Model Development 11, 937-957 (2018).

1930 728 Marques, J. D. d. O., Luizão, F. J., Teixeira, W. G. & Ferreira, S. J. F. Variations of dissolved
1931   organic carbon and soil physical properties under different land uses in Central Amazônia.
1932   Volume 36, Número 2, Pags. 611-622 (2012).

1933 729 Lu, Y., Wassmann, R., Neue, H.-U. & Huang, C. Dynamics of dissolved organic carbon and

1934   methane emissions in a flooded rice soil. Soil Science Society of America Journal 64,
1935   2011-2017 (2000).

1936   730 Oosterwoud, M., Temminghoff, E. & van der Zee, S. Quantification of DOC concentrations in
1937   relation with soil properties of soils in tundra and taiga of Northern European Russia.
1938   Biogeosciences Discussions 7, 3189-3226 (2010).

1939   731 Buckeridge, K. M., Cen, Y.-P., Layzell, D. B. & Grogan, P. Soil biogeochemistry during the
1940   early spring in low arctic mesic tundra and the impacts of deepened snow and enhanced nitrogen
1941   availability. Biogeochemistry 99, 127-141 (2010).

1942   732 Fang, H. et al. Experimental nitrogen deposition alters the quantity and quality of soil dissolved
1943   organic carbon in an alpine meadow on the Qinghai-Tibetan Plateau. Applied Soil Ecology 81,
1944   1-11 (2014).

1945   733 Fang, H. et al. Changes in soil heterotrophic respiration, carbon availability, and microbial
1946   function in seven forests along a climate gradient. Ecological Research 29, 1077-1086 (2014).

1947   734 Iqbal, J. et al. Microbial biomass, and dissolved organic carbon and nitrogen strongly affect soil
1948   respiration in different land uses: A case study at Three Gorges Reservoir Area, South China.
1949   Agriculture, Ecosystems & Environment 137, 294-307 (2010).

1950   735 Jones, D., Hughes, L., Murphy, D. & Healey, J. Dissolved organic carbon and nitrogen
1951   dynamics in temperate coniferous forest plantations. European journal of soil science 59,
1952   1038-1048 (2008).

1953   736 Li, W. et al. Soil available nitrogen, dissolved organic carbon and microbial biomass content
1954   along altitudinal gradient of the eastern slope of Gongga Mountain. Acta Ecologica Sinica 33,
1955   266-271 (2013).

1956   737 Liu, C. P. & Sheu, B. H. Dissolved organic carbon in precipitation, throughfall, stemflow, soil
1957   solution, and stream water at the Guandaushi subtropical forest in Taiwan. Forest Ecology and
1958   Management 172, 315-325 (2003).

1959   738 Linghong Z. Effects of Winter Green Manure Crops with and Without Chicken Grazing on CH4
1960   and CO2 Emissions, Soil Nutrients and Yield in a Double-Crop Rice Paddy Field in South
1961   China. 2017. (In Chinese)

1962   739 Shan L. The study on N2O flux from different land uses in three gorges reservoir area. 2011. (In
1963   Chinese)

1964   740 Guo, K. Effect of Biochars Prepared from Different Feedstocks and Pyrolysis Temperatures on
1965   the Structure and Function of Microbial Communities in a Bamboo (Phyllostachys Praecox)
1966   Plantation Soil. 2021. (In Chinese)

1967   741 Yuan, Q. Study on soil organic carbon fractions in different land use types. 2013. (In Chinese)

1968   742 Yin, Y. Effects of biochars addition on the mineralization of soil organic carbon under different
1969   incubation conditions. 2018. (In Chinese)

1970   743 Ai, N. Nitrogen immobilization by soil microbial biomass and its control in different soils. 2008.
1971   (In Chinese)

1972   744 Li, L. Effects of different N level on soil organic carbon stability in meadow chernozemic soil.
1973   2014. (In Chinese)

1974   745 Liang, H. Effect of different fertilization on CO2 emission for a paddy-upland rotation purple
1975   soil under wheat. 2011. (In Chinese)

1976   746 Chen, J. Effects of different fertilizer sources and tillage practices on GHG emissions and soil
1977   carbon pool in paddy fields. 2016. (In Chinese)

1978 747 Wang, Q. Effects of different ways of straw returning on soil greenhouse gas emissions in
1979   sloping cropland. 2016. (In Chinese)

1980 748 Zhou, W. Temperature Sensitivity and Driving Factors Analysis of Soil Organic Carbon
1981   Decomposition across Chinese Typical Cropland. 2020. (In Chinese)

1982 749 Pei, X. Effect of long-term fertilization on diversity of soil microbial community structure under
1983   different cropping systems. 2010. (In Chinese)

1984 750 Yin, C. Responses of N_2O Emission and Reduction as well as Associated Microbes to
1985   Temperature and Different Fertilization Regimes in Arable Soils. 2017. (In Chinese)

1986 751 Gao, Z. Contents and characteristics of soluble organic carbon, nitrogen in the arable soil. 2009.
1987   (In Chinese)

1988 752 Liu, Y. Effects of Organic Fertilizer Substituting Mineral Nitrogen Fertilizer on Soil Carbon and
1989 753   Absorbed Nutrient in Spring Wheat. 2021. (In Chinese)

1990 753 Zhang, L. Intergrative effects of green manure and straw incorporation on greenhouse gas
1991   emissions and environmental performance under the typical rice cropping systems in southern
1992   china. 2018. (In Chinese)

1993 754 Zhou, G. The Characteristics of Carbon and Nitrogen Transformation under the
1994   Co-incorporation of Rice Straw and Leguminous Green Manures in Double Rice Field in
1995   Southern China. 2017. (In Chinese)

1996 755 Wu, L. Effects of land-use conversion from double-rice to vegetable cultivation on net
1997   ecosystem carbon budget and greenhouse gas emissions. 2018. (In Chinese)

1998 756 Cheng, H. Responses of soil active organic carbon, nitrogen and rice yield to Chinese milk vetch
1999   application rates. 2020. (In Chinese)

2000 757 Yu, J. Study on the effect of fertilizing management on carbon and nitrogen of black soil. 2010.
2001   (In Chinese)

2002 758 Wang, Y. Effects of water and fertilizer treatments based on vetch and orychophragmus
2003   violaceus on soil fertility and composition of active organic carbon. 2020. (In Chinese)

2004 759 Guo, Y. Effects of exogenous carbon addition on organic carbon mineralization, humification
2005   and enzyme activities in agricultural soils. 2020. (In Chinese)

2006 760 Li, Y. Effects of multi-year application of biochar on carbon cycle of tobacco-growing soils in
2007   Henan Province. 2019. (In Chinese)

2008 761 Zhu, W. Effect of combined amendment of wheat and huai bean straws on soil organic carbon
2009   sequestration. 2018. (In Chinese)

2010 762 Chang, D. Cliaractci istics of Soil Dissolved Organic Matter in Main Creen Manure Plantation
2011   Systems in China. 2015. (In Chinese)

2012 763 Zhang, W. Effects of amendments on soil organic carbon fractions and microbial in upland red
2013   soil. 2017. (In Chinese)

2014 764 Deng, B. Effects of ameliorant application on greenhouse gas emissions from camellia oleifera
2015   plantation soil under nitrogen fertilization. 2020. (In Chinese)

2016 765 Zhu, J. Study on the change of soil organic carbon and the prediction model of total organic
2017   carbon based on hyperspectral after biochar addition. 2017. (In Chinese)

2018 766 Yang, X. Study of application nitrogen fertilizer rate on soil labile pools and their effects in
2019   different managements condition. 2016. (In Chinese)

2020 767 Pu, D. Effects of application of biogas slurry and biochar on soil active organic carbon and
2021   nitrogen in poplar forest. 2015. (In Chinese)

2022 2023	768	Xu, Y. Application of rice straw and engineered bacteria on the biochemical properties of cu and cd-polluted soil. 2011. (In Chinese)
2024 2025	769	Yu, P. Characteristics and mechanisms of organic matter mineralization influenced by fertilization and land use in red soil and paddy soil. 2021. (In Chinese)
2026 2027	770	Chen, W. Fertilization effects on active organic carbons and soil structure in black soil farmland with different soil organic matter contents. 2013. (In Chinese)
2028 2029	771	Liu, S. Preliminary mechanism study on the effect of fertilization on reactive minerals and their carbon sequestration in upland red soil. 2016. (In Chinese)
2030 2031	772	Sun, D. Effect of fertilization practice on the constitution and bioavailability of dissolved organic carbon in red paddy soil. 2014. (In Chinese)
2032 2033	773	Ji, X. Effects of Combined Application of Organic and Inorganic Fertilizers on Carbon and Nitrogen Characteristics and Bacterial Community Structure of Purple Soil. 2020. (In Chinese)
2034 2035	774	Xu, L. Effects of Liquid Organic Fertilizer Application on Soil Biological Properties and Active Organic Carbon Components in Navel Orange Orchard. 2021. (In Chinese)
2036 2037	775	Sun, H. Effect of Organic Fertilizer and Inorganic Fertilizer Application on N2O and NO Emissions from Fluvo-aquic Soil in the North China Plain. 2020. (In Chinese)
2038 2039	776	Liu, R. Study on the mechanism of the improvement of soil organic matter under simulated maize straw and biochar returning in a black soil. 2021. (In Chinese)
2040 2041	777	Yang, J. Dynamic and leaching characteristics of soluble organic nitrogen compositions in paddy soil under different fertilization treatments during rice growth period. 2018. (In Chinese)
2042 2043	778	Shen, Z. C02 and N20 Emission Characteristics and Impact Factors in Farmland under Biogas Slurry Irrigation. 2015. (In Chinese)
2044 2045	779	Zhao, L. Effects of fertilization on cucumber growth and soil fertility in greenhouse continuous cropping under soil deterioration. 2015. (In Chinese)
2046 2047 2048	780	Zheng, L. Effects of combined applications of pig manure and chemical fertilizers on CH4 and N2O emissions and their global warming potentials in paddy fields with double-rice cropping. 2015. (In Chinese)
2049 2050	781	Lu, Y. Influnces of combining biochar and nitrogn fertilization on red soil nematode assemblages and soil enzyme activities. 2015. (In Chinese)
2051	782	Yu, L. The effects of biochar on acidic soil amelioration and soil nitrification. 2019. (In Chinese)
2052 2053	783	Wu, Y. Effects of biochar application on bacterial diversity and physical-chemical properties in fluvor-aquic soil of north China. 2014. (In Chinese)
2054 2055	784	Wang, J. Effect of biochar application on the composition and stability of organic carbon in deep paddy soil. 2020. (In Chinese)
2056 2057	785	Xue, S. Effects of biochar addition on soil labile C and N contents in a subtropical evergreen forest. 2018. (In Chinese)
2058 2059	786	Yu, M. Charosphere Effects of Biochar and Its Associated Key Processes of Soil Nitrogen Transformation. 2021. (In Chinese)
2060 2061	787	An, Y. Effect of biochar application on soil aggregates distribution and organic carbon fractions. 2016. (In Chinese)
2062	788	Xu, L. Effect of biochar on soil prosperities and soil organic carbon pool. 2013. (In Chinese)
2063 2064 2065	789	Ran, J. Effects of phosphorus fertilizer application and different optimized measures on rhizosphere process, yield and phosphorus use efficiency of winter wheat in dryland. 2021. (In Chinese)

2066 790 Wang, W. Impact of Annual Straw Management and Fertilizer on Agriculture Ecosystem
2067   Greenhouse Gas Emissions and Productivity in Wheat-Maize Rotation System. 2019. (In
2068   Chinese)

2069 791 Wang, P. Remediation of cu and cd-contaminated soil by joint application of straw and
2070   engineered bacteria. 2011. (In Chinese)

2071 792 Wen, D. Effects of straw biochar application on tobacco soil carbon and nitrogen forms and
2072   related enzyme activities. 2017. (In Chinese)

2073 793 Ma, Y. Effect of application of straw-derived biochar on denitrification and anammox in paddy
2074   soil. 2020. (In Chinese)

2075 794 Guo, C. Effects of cotton straw incorporation on soil microbial biomass carbon, nitrogen,
2076   phosphorus and Soil Dissolved Organic Carbon of continuous cropping cotton field. 2015. (In
2077   Chinese)

2078 795 Li, C. Study on the effect of corn straw on mian physical and chemical characteristics of black
2079   soil. 2012. (In Chinese)

2080 796 Ye, C. Effects of Straw Returning Methods and Quantities on Organic Carbon and Nitrogen
2081   components in Brown Earth and the Growth of Maize. 2019. (In Chinese)

2082 797 Xu, Y. Changes of Contents and Chemical Composition of Soil Labile Organic Carbon Fractions
2083   and its Correlation with Soil Enzyme Activities under Straw Incorporation Condition. 2018. (In
2084   Chinese)

2085 798 Pei, P. Effects of Straw Incorporation Coupled Nitrogen levels on Biochemical Properties of
2086   Paddy Soil and Growth Characteristics of Rice. 2014. (In Chinese)

2087 799 Su, Y. Effects of long-term straw return on n2o and no emissions from wheat-maize rotation
2088   system in purplish soil. 2021. (In Chinese)

2089 800 Li, X. Effect of combination of rice husk biochar and organic fertilizers on soil organic carbon
2090   fractions and soil microbial community of apple orchard. 2016. (In Chinese)

2091 801 Hu, X. Effects on soil fertility in the application of organic materials in paddy field. 2019. (In
2092   Chinese)

2093 802 Huang, X. Mechanisms of the interaction between poorly crystalling iron oxides and soil
2094   organic carbon in a rice-wheat cropping system. 2017. (In Chinese)

2095 803 Xia, Z. Nitrogen and carbon transformation in soil of maize/fabe-bean intercropping system.
2096   2011. (In Chinese)

2097 804 Li, Y. Effects of plastic film mulching and fertilization on soil respiration and carbon stocks on
2098   the Loess Plateau cropland. 2021. (In Chinese)

2099 805 Luo, P. Effect of long-term fertilization on microbial community in a brown soil under
2100   crop-rotation system. 2014. (In Chinese)

2101 806 Dao, L. Emission characteristics of co2 and ch4 on dryland under different long-term
2102   fertilizations. 2018. (In Chinese)

2103 807 Huang, C. Regulation of long-term fertilization on iron oxides and organic carbon preservation
2104   in soils. 2015. (In Chinese)

2105 808 Guo, Y. Emission characteristics of co2 and ch4 on dryland lou soil under different long-term
2106   fertilizations. 2017. (In Chinese)

2107 809 Hao, X. Effect of long-term fertilization on soil organic carbon, organic nitrogen and microbial
2108   properties in subtropical paddy soils. 2008. (In Chinese)

2109 810 Li, D. Influence of long-term fertilization on AM fungi community in a brown soil. 2018. (In

2110 Chinese)

2111 811 Rong, J. Effects of long-term fertilization on soil carbon pool and distribution characteristics of
2112 aggregates in oasis farmland. 2012. (In Chinese)

2113 812 Kong, F. Relationship between humus carbon and microbial community structure and function
2114 in long-term fertilized red soil aggregates. 2020. (In Chinese)

2115 813 Zhang, J. Changes of winter wheat yield and soil fertility under long-term straw management
2116 and nitrogen application. 2018. (In Chinese)

2117 814 Huang, W. Research on the difference of soil organic carbon, nitrogen fractions and yield in
2118 double-cropped paddy in south cina under long-term straw return. 2020. (In Chinese)

2119 815 Yao, F. Effect of long-term rotation fertilization on ammonia oxidation microorganisms
2120 abundance in brown soil. 2016. (In Chinese)

2121 816 Li, X. Response mechanism of soil organic carbon to different agricultural tillage methods in the
2122 north of yinshan. 2017. (In Chinese)

2123 817 Peng, Y. Response of Soil Respiration to Addition of Nitrogen and Phosphorus and Influencing
2124 Factors of Dry Farmland in Longzhong. 2021. (In Chinese)

2125 818 Huang, T. Intercropping and fertilization of forage rape with sorghum in feed rapeseed effect of
2126 yield quality and soil oragnic carbon composition. 2020. (In Chinese)

2127 819 Song, J. Response of soil organic carbon and crop yield to long-term fertilization and climate
2128 change in winter-wheat and summer-maize rotation. 2021. (In Chinese)

2129 820 Luo, K. Black soil carbon nitrogen and its fraction in response to long-term fertilization. 2012.
2130 (In Chinese)

2131 821 Luo, C. Effects of structural variation on wheat productivity and soil quality and its mechanism
2132 under ridge-furrow mulching farming system in semiarid East African Plateau. 2020. (In
2133 Chinese)

2134 822 Qi, R. Responses of Soil Organic Carbon Mineralization under Long-term Fertilization Regimes
2135 to Temperature Changes and Cattle Manure Addition. 2016. (In Chinese)

2136 823 Chen, L. Study on effects of the typical rice-wheat herbicides influencing on CH4 and N2O
2137 emissions from croplands ecosystem. 2014. (In Chinese)

2138 824 Yu, Z. Seasonal variations of microbial community structures and functions in cultivated and
2139 natural restored Mollisols. 2012. (In Chinese)

2140 825 Jiang, Y. Effects of Inhibitors and Controlled Release Fertilizers on N2O and NO Emissions
2141 from Fluvo-aquic Soil in the Old Course of Yellow. 2020. (In Chinese)

2142 826 Kuang, E. Analysis of DOC component structure in straw deep-combed black soil profile based
2143 on fluorescence spectrum. 2022. (In Chinese)

2144 827 Zhao, X. Response of dissolved organic matter chemical properties to long-term different
2145 fertilization in latosol: insight from uitraviolet-visible spectroscopy. 2022. (In Chinese)

2146 828 Zhang, J. Effects of Organic Fertilizer Substituting Mineral Nitrogen Fertilizer on Soil Carbon
2147 and Absorbed Nutrient in Spring Wheat. 2022. (In Chinese)

2148 829 Liu, Z. The effects of different straw-derived biochars and tillage measures on soil carbon. 2021.
2149 (In Chinese)

2150 830 Lu, S. Effects of different tillage and fertilization measures on soil nutrients, organic carbon and
2151 microbial community functional diversity in Weibei Highland. 2020. (In Chinese)

2152 831 Pan, X. Effects of different tillage managements on soil carbon and nitrogen cycling microbial
2153 diversity under double-cropping rice field. 2020. (In Chinese)

2154 832 Li, S. Effects of different tillage patterns on greenhouse gas emission and nitrogen uptake of rice.
2155   2016. (In Chinese)

2156 833 Wang, X. Effects of conservation tillage on the indicators and correlations of soil organic carbon.
2157   2009. (In Chinese)

2158 834 Wang, C. Effects of conservation tillage measures on the contents and properties of organic
2159   carbon and nitrogen in lou soil. 2010. (In Chinese)

2160 835 Guo, L. Effects of no-tillage and straw return on soil organic carbon pool and microbial
2161   diversity in rice–wheat systems. 2018. (In Chinese)

2162 836 Li, D. The dynamic of methane emission and the community structure and population of
2163   methanogens under no-tillage non-flooded with straw mulching paddy field of southeast china.
2164   2010. (In Chinese)

2165 837 Zhang, R. Paddy soil respiration and organic carbon fractions under wide ridge cultivated with
2166   no-tillage in central China. 2015. (In Chinese)

2167 838 Liu, X. Effects of Deep Loosening and Deep Straw Returning on Soil Organic Carbon and
2168   Microbial Community Characteristics in Black Soil. 2019. (In Chinese)

2169 839 Yan, X. Effects of cotton stubble returning and plowing on soil physicochemical properties and
2170   microbial community struction in cosstal saline soil. 2021. (In Chinese)

2171 840 Meng, Y. Effects of straw incorporation on soil carbon-nitrogen conversion and crop growth in a
2172   rice-wheat rotation system. 2020. (In Chinese)

2173 841 Kou, Z. Effects of tillage and application of fertilizer on paddy soil carbon emission and carbon
2174   balance. 2011. (In Chinese)

2175 842 Wang, J. Effect of Different Tillage Practices on Soil Organic Carbon Transformation and Water
2176   Use in Dryland Winter Wheat. 2014. (In Chinese)

2177 843 Wu, Y. The effect of tillage systems on organic carbon fractions in a purple paddy soil. 2012. (In
2178   Chinese)

2179 844 Wang, X. Effects of returning mode and straw-decomposing inoculant on decomposition
2180   characteristics and soil nutrient content of maize straw. 2020. (In Chinese)

2181 845 Teclemariam, S. G. Effect of on-tillage on soil organic carbon and nitrogen and their pools in
2182   rainfed agriculture of northern china. 2012. (In Chinese)

2183 846 Li, J. Long-term tillage effects on soil aggregate organic carbon and microbial community
2184   diversity. 2014. (In Chinese)

2185 847 Hao, M. Changes of soil organic carbon components and relationships with soil microbial
2186   diversity in wheat-maize crop system. 2018. (In Chinese)

2187 848 Wang, Y. Effects of Different Elevated CO2 Concentrations on CH4 Emission and its
2188   Mechanism in Paddy Fields. 2021. (In Chinese)

2189 849 Yu, C. Soil microbial responses to global change in a semi-arid steppe in northern china. 2016.
2190   (In Chinese)

2191 850 Zhou, G. Responses of soil respiration to simulated drought and nitrogen addition in a
2192   subtropical evergreen broad-leaved forest. 2020. (In Chinese)

2193 851 Wu, Y. Effects of litter and nitrogen addition on carbon and nitrogen of soil fractions in
2194   Castanopsis faberi Hance forest. 2019. (In Chinese)

2195 852 Chen, L. Response of soil nitrogen cycling to simulated rainfall reduction in Red Vertebra
2196   plantation, South Subtropical region. 2019. (In Chinese)

2197 853 Zhang, J. Characteristics and influence factors of soil respiration in alpine marsh meadow under

2198   warming and nitrogen application. 2021. (In Chinese)

2199   854   Zhao, S. Influence of Arbuscular Mycorrhizal Fungi on Soil Aggregates and Carbon Storage

2200   under Warming and Nitrogen Addition in Songnen Grassland. 2021. (In Chinese)

2201   855   Zhong, Z. Effects of experimental warming and precipitation manipulation on the key processes

2202   of soil carbon cycle in abandoned farmland of the loess hilly region. 2021. (In Chinese)

2203   856   Zheng, Y. Effects of soil warming and preeipitation exclusion on soil respiration of chinese fir

2204   plantation and its mechanism in mid-subtropical china. 2017. (In Chinese)

2205   857   Bai, H. The effect of warming on the change of soil organic carbon and its components in

2206   subtropical forests. 2020. (In Chinese)

2207   858   Li, Y. Effect of Warming on N2O Emission on Alpine Meadow and Cultivated Grassland in the

2208   Qinghai Tibet Plateau. 2020. (In Chinese)

2209   859   Zhou, W. Effects of increasing atmospheric temperature and carbon dioxide concentration on

2210   CH4 and N20 emissions and microorganisms in paddy fields. 2017. (In Chinese)

2211   860   Li, D. Nitrogen application has effect on soil of Schima superba forest in Tiantong Influence of

2212   carbon pool formation and decomposition. 2015. (In Chinese)

2213   861   Wang, Y. Effect of simulated warming and throughfall reduction on soil respiration and

2214   microbial response in Warm-temperate oak (Quercus aliena var. acuteserrata) forest. 2015. (In

2215   Chinese)

2216   862   Yang, C. Effects of simulated warming on soil inorganic nitrogen in a young and a mature

2217   Cunninghamia lanceolata stand in humid. 2020. (In Chinese)

2218   863   Pan, X. Effects of simulated warming and nitrogen deposition on soil respiration and DOM in

2219   soil solution. 2016. (In Chinese)

2220   864   Wang, X. Effects of simulated warming and precipitation increasing on soil carbon composition

2221   and respiration of abandoned grassland in the loess hilly region. 2021. (In Chinese)

2222   865   Gou, X. Effect of simulated climate warming on soil carbon and nitrogen transformation in the

2223   alpine forest of western sichuan. 2014. (In Chinese)

2224   866   Chao, A. Effects of simulated climate change on greenhouse gas fluxes in typical steppe

2225   ecosystem. 2019. (In Chinese)

2226   867   Xiong, L. Changes molecular composition of rice root exudates and soil organic matter in a rice

2227   paddy under simulated climate change. 2020. (In Chinese)

2228   868   Lei, Z. Effects of simulated nitrogen deposition and biochar addition on dissolved organic

2229   carbon and nitrogen in Moso bamboo platation. 2019. (In Chinese)

2230   869   Wang, C. Effects of simulated nitrogen deposition and acidification on soil properties in Yunwu

2231   Mountain grassland. 2020. (In Chinese)

2232   870   Chu, X. Effects of Simulated Nitrogen Deposition on Soil Nitrogen Mineralization in Quercus

2233   Acutissima Forest of Urban and Rural Areas. 2021. (In Chinese)

2234   871   Peng, Y. Effects of simulated nitrogen deposition on belowground carbon cycling processes and

2235   soil biochemical characteristics in a secondary evergreen broad-leaved forest on Wawu

2236   Mountain. 2016. (In Chinese)

2237   872   Zhang, J. Effect of simulated nitrogen deposition on soil carbon budget progress in a larix

2238   olgensis plantation forest. 2016. (In Chinese)

2239   873   Qu, W. Effects of stimulated nitrogen deposition on soil carbon budget in the Yellow River Delta

2240   Wetland. 2021. (In Chinese)

2241   874   Li, J. Effects of simulated nitrogen input on the key processes of carbon cycle in a salt marsh in

2242   the Yellow River Delta. 2021. (In Chinese)

2243   875   Wang, N. Effects of simulated acid rain on the roots and soil ecological processes of a
2244   subtropical broadleaf pgyllostachys edulis mixed stand. 2020. (In Chinese)

2245   876   An, W. Effects of simulated acid rain on nutrient dynamics of paddy field and greenhouse gases
2246   emission in fuzhou plain. 2017. (In Chinese)

2247   877   Zhang, M. Effects of nitrogen and litter addition on soil organic carbon pool components in
2248   Minjiang River estuary wetland. 2019. (In Chinese)

2249   878   Xu, W. Study on effects of nitrogen deposition, grazing and exireme precipitation on N2O
2250   emissions in a leymus chinensls meadow. 2021. (In Chinese)

2251   879   Zhang, C. Effects of nitrogen deposition and acidity mitigation on plant fine root functional
2252   traits and ecological process in red soil region. 2020. (In Chinese)

2253   880   Hao, Y. Effects of nitrogen deposition on soil organic carbon and microbial properties in
2254   evergreen broad-leaved forests of subtropics. 2018. (In Chinese)

2255   881   Cui, J. Mechanism of nitrogen deposition on undergrowth and soil bacterial community
2256   diversity in subtropical evergreen broad-leaved forest. 2017. (In Chinese)

2257   882   Li, J. Effects of nitrogen deposition on soil aggregate and organic carbon stability in subtropical
2258   forest. 2016. (In Chinese)

2259   883   Zhao, S. Effects of nitrogen deposition on soil organic carbon in shrub grass tundra of Changbai
2260   Mountain. 2021. (In Chinese)

2261   884   Wang, M. Effects of millipedes on microbial community structure and oxidase activity under the
2262   nitrogen deposition. 2019. (In Chinese)

2263   885   Zhang, H. Effect of nitrogen addition on growth and soil nutrients of cunninghanmia lanceolate
2264   plantation. 2017. (In Chinese)

2265   886   Xu, K. Effects of simulated nitrogen deposition on soil active organic carbon in poplar
2266   plantations in a coastal area, China. 2014. (In Chinese)

2267   887   Song, J. Effects of nitrogen and phosphorus additions on soil organic carbon fractions and
2268   aggregate stability in a subtropical evergreen broad-leaved forest. 2020. (In Chinese)

2269   888   Li, L. Effect of N and P additions on c and n pools of rhizosphere and non-rhizosphere soils on a
2270   subtropical evergreen broad-leaved forest. 2017. (In Chinese)

2271   889   Ling, X. Effects of nitrogen and phosphorus addition on the structure, carbon content and
2272   stability of soil aggregates in Songnen grassland. 2020. (In Chinese)

2273   890   Li, C. Effects of wet deposition of nitrogen and phosphorus and litter addition on soil active
2274   organic carbon pool and nitrogen and phosphorus in broad leaved pinus koraiensis forest. 2020.
2275   (In Chinese)

2276   891   Wang, Y. Effect of adding a combination of nitrogen and phosphorus on fine root and soil
2277   microbes of machilus pauhoi. 2018. (In Chinese)

2278   892   Zhang, Q. Short-term effects of soil warming and nitrogen addition on the CNP stoichiometry
2279   and physiological ecology of cunninghamia lanceolate in subtropical regions. 2017. (In Chinese)

2280   893   Guo, J. Response of main mineral bioavailability to atmospheric CO2 emission in paddy
2281   ecosystem. 2011. (In Chinese)

2282   894   Liu, Y. Legacy effects of historical nitrogen and water addition on soil microbiological
2283   characteristics in a typical steppe. 2021. (In Chinese)

2284   895   Li, Y. Effects of precipitation reduction and nitrogen addition on soil organic carbon content and
2285   soil microbial community in subtropical mountain forests. 2020. (In Chinese)

2286 896 Tao, D. Effects of Precipitation Changes and Nutrient Addition on Ecosystem Carbon Exchange
2287   of a Meadow Grassland in Hulunber. 2021. (In Chinese)

2288 897 Huang, Y. Effect of precipitation exclusion on castanopsis carlesil natural forest soil methane
2289   uptake and methanotrophs community structure. 2014. (In Chinese)

2290 898 Li, H. Effects of simulated warming on active soil organic carbon and nitrogen of the alpine
2291   timberline. 2018. (In Chinese)

2292 899 Wang, A. Effect of seasonal freeze-thaw on soil microbial and biochemical property in alpine
2293   forest soil. 2012. (In Chinese)

2294 900 Guo, Q. Effect of nitrogen addition on growth and soil nutrient of cunninghanmia lanceolate
2295   plantation. 2016. (In Chinese)

2296 901 Huo, L. Impact of Buring Straw Layer Along With Plastic Mulching on Saline Soil Organic
2297   Carbon and CO2 Emission in Hetao Irrigation District. 2015. (In Chinese)

2298 902 Gao, G. Effects of Freezing on the Sediment Environment and Microorganism around Roots of
2299   Typical Wetland Plants in Agricultural Drainage Ditch. 2021. (In Chinese)

2300 903 Huang, R. Effects of biological regulated measures on soil physicochemical properties and
2301   runoff-sediment yield in three gorges reservoir region. 2013. (In Chinese)

2302 904 Yong, Y. Changes of Nutrients in Grassland of Typical Ecological Animal Husbandry
2303   Cooperatives and Their Relationship with Sustainable Production in the Three Rivers Source
2304   Region. 2016. (In Chinese)

2305 905 Zhou, F. Soil microbial community structure and function under plantations of different tree
2306   species. 2017. (In Chinese)

2307 906 Zhang, P. Effects of different winter planting patterns on soil physical and chemical properties
2308   and microbial diversity in double cropping rice fields. 2020. (In Chinese)

2309 907 Gu, H. Differences and Influencing Factors of PLFA Fingerprints under Different Land Use
2310   Patterns in Red Soil. 2021. (In Chinese)

2311 908 Yang, Y. The structure of soil organic carbon and enzyme activity under different land types.
2312   2017. (In Chinese)

2313 909 Jiang, J. Study on the response of autotrophic bacterial community and microbial carbon
2314   sequestration to soil erosion under different soil types. 2019. (In Chinese)

2315 910 Di, J. Effects of different intercropping models of torreya grandis on soil physicochemical
2316   properties and bacterial diversity. 2020. (In Chinese)

2317 911 Zhang, B. Study on Soil Nitrification, Denitrification and Functional Microorganisms of
2318   Cunninghamia lanceolata Forest at Different Ages. 2020. (In Chinese)

2319 912 Zhu, X. Short-term effects of different regenerations after clearfelling on soil greenhouse gases
2320   in Chinese fir plantation. 2016. (In Chinese)

2321 913 Li, Y. Dynamic study of soil organic carbon and soil respiration in different regeneration
2322   patterns of Chinese fir plantation. 2010. (In Chinese)

2323 914 Yang, J. Studies on soil nitrogen transformations and the functional microorganisms in natural
2324   secondary forests with different ages. 2020. (In Chinese)

2325 915 Huang, L. The influence of different vegetation restoration patterns on physical property and
2326   soil labile carbon in degraded purple soil. 2015. (In Chinese)

2327 916 Wang, N. The research of change rule and characteristics of soil microbial metabolism and the
2328   important indicators of organic carbon at different altitude. 2015. (In Chinese)

2329 917 Ding, X. Effect of different mixed modes on soil organic carbon and soil respiration in

2330   phyllostachys heterocycla. 2009. (In Chinese)

2331   918   Pu, Q. Study on soil organic carbon, nitrogen and enzyme activity characteristics with different
2332   ecological restoration patterns in desert land of northwestern Sichuan, China. 2017. (In Chinese)

2333   919   Zhou, H. Variation Characteristics of Organic Carbon and Its Fractions in Soil of Alfalfa
2334   Grassland with Different Growing Years. 2016. (In Chinese)

2335   920   Zhu, H. Effects of different carbon input manipulations on soil carbon, nitrogen and biological
2336   characteristics of Schrenk's spruce (Picea schrenkiana) forest. 2021. (In Chinese)

2337   921   Li, X. Variation characteristics of soil carbon and nitrogen components in Tianshui Huaniu apple
2338   orchard with different planting years. 2021. (In Chinese)

2339   922   Xu, Q. Study on variation characteristics and influencing factors of soil aggregates in plastic
2340   shed system during different planting years. 2020. (In Chinese)

2341   923   Zhan, M. Study on mechanisms of carbon sequestration, carbon emissions and soil organic
2342   carbon dynamics in different farming paddy fields. 2009. (In Chinese)

2343   924   Wang, W. A preliminary study on soil carbon pool characteristics of poplar plantation under
2344   different management modes. 2010. (In Chinese)

2345   925   Li, Z. Status Analysis of Soil Iron Oxide and Organic Carbon Forms in China's Different
2346   Fertility Paddy Soils. 2018. (In Chinese)

2347   926   Yuan, Z. Response of soil organic matter fractions with different thinning intensities in
2348   subalpine spruce forest western Sichuan. 2011. (In Chinese)

2349   927   Wang, N. Characteristics of carbon pools, nitrogen pools, phosphorus, potassium and nitrogen
2350   balance, phosphorus balance as well as potassium balance in soil profile in typical spring maize
2351   planted regions in northeast China. 2016. (In Chinese)

2352   928   Liu, T. Effect of forest conversion on quantities and spectroscopic characteristics of soil
2353   dissolved organic matter in subtropical China. 2015. (In Chinese)

2354   929   Zheng, X. Effects of afforestation on soil organic carbon and nutrient content in different trees
2355   of mid-subtropical China. 2018. (In Chinese)

2356   930   Bao, Y. Effects of vegetation types on soil DOM characteristics and microbes in the
2357   mid-subtropical forests. 2018. (In Chinese)

2358   931   Li, J. Response of soil labile organic carbon fractions and carbon mineralization to land-use
2359   changes in min-subtropical hilly region of China. 2014. (In Chinese)

2360   932   Zhao, P. Changes of soil organic carbon and microbial properties in Pinus taiwanensis forest at
2361   different altitudes in Daiyun Mountain of subtropical. 2019. (In Chinese)

2362   933   Chen, X. Effect of land use and landscape position on soil labile organic carbon in the hilly
2363   red-soil area of the mid-subtropical climatic zone. 2012. (In Chinese)

2364   934   Lian, X. Study on emission fluxes of CO_2 and CH_4 and their vertical distribution
2365   characterizations of soil from wetlands in southeast China. 2014. (In Chinese)

2366   935   Wang, Q. Soil microbial respiration rate and its influencing factors along a north-south forest
2367   transect in eastern China. 2016. (In Chinese)

2368   936   Sun, S. Responses of soil carbon and nitrogen cycles to Changes in Global Environmental
2369   factors —Effects of land use types, N deposition and climate warming on soil C and N cycles.
2370   2014. (In Chinese)

2371   937   Deng, W. Nitrous Oxide Emissions from a Hilly Tea Field in Subtropical China. 2018. (In
2372   Chinese)

2373   938   Zeng, X. Characteristics of soil phosphorus under typical vegetation types in subtropical forests

2374 and the affecting factors. 2019. (In Chinese)

2375 939 Wang, M. Characteristics of dissolved organic carbon in a subtropical forest landscape and its
2376 sequestration mechanisms. 2019. (In Chinese)

2377 940 Yuan, Z. Characteristics of Carbon Pool and Nutrients under two typical forests in Nanjing Zijin
2378 Mountain. 2017. (In Chinese)

2379 941 Fei, F. Responses of soil microbial biomass and enzyme activities to forest gap scale. 2015. (In
2380 Chinese)

2381 942 Mei, J. The characteristic of soil active organic carbon in different forest types in Saihanba.
2382 2020. (In Chinese)

2383 943 Ding, L. Study on carbon and nitrogen forms and soil enzyme activities of rhizosphere soil of
2384 main tree species in northern Da Hinggan Ling mountains. 2019. (In Chinese)

2385 944 Tian, S. Study on characteristics of soil labile organic carbon in main forest types in the north of
2386 Da Hinggan Ling mountains. 2016. (In Chinese)

2387 945 Li, S. Characteristics of soil carbon change during forest succession in Da Hinggan mountains.
2388 2019. (In Chinese)

2389 946 Sun, L. The Dynamics of Soil Organic Carbon Fractions in Different Vegetation Types of
2390 Tianshan Forest. 2018. (In Chinese)

2391 947 Zhou, H. Study on Runoff and Sediment Yield Process of the Cross Ridge and Longitudinal
2392 Ridge Slope under Natural Rainfall. 2018. (In Chinese)

2393 948 Zhang, Y. Abundance and diversity of soil nematode community in natural at different altitudes
2394 in cold-temperate climate zone. 2021. (In Chinese)

2395 949 Wu, R. Research on soil microbial properties in Larix principis-rupprechtii plantation at Taiyue,
2396 Shanxi. 2020. (In Chinese)

2397 950 Ke, Y. The characteristics of soil CO2, N2O emissions in the hilly area of central Sichuan basin
2398 typical farmland and forest and validation of DNDC model for the measurements. 2015. (In
2399 Chinese)

2400 951 Xu, Y. Effects of different transformation measures on soil organic carbon in the Pinus
2401 massoniana low-benefit forest in southern Sichuan. 2016. (In Chinese)

2402 952 Hao, K. Seasonal dynamic of soil labile organic carbon in spruce plantation different structural
2403 adjustment in subalpine of western Sichuan. 2011. (In Chinese)

2404 953 Kang, C. Seasonal dynamics of soil labile Organic Carbon in spruce plantation different
2405 structural adjustment in subalpine of western Sichuan. 2019. (In Chinese)

2406 954 Huang, H. Study on soil dissolved organic matter content under different land use types of
2407 Longgu district in Chengdu. 2013. (In Chinese)

2408 955 Gong, C. Effects of altered carbon input on carbon emissions of the marshy wetlands and the
2409 microbiological mechanisms. 2018. (In Chinese)

2410 956 Xin, F. The seasonal dynamics of soil respiration and microbial community with different
2411 plantations regeneration way of Cunninghamia lanceolata. 2012. (In Chinese)

2412 957 Lin, X. Effects of tree species composition on soil carbon composition in poplar plantation.
2413 2021. (In Chinese)

2414 958 Zhang, H. Annual variations of the active and recalcitrant organic carbons and the microbial
2415 influences in saline-alkali farmland soil. 2017. (In Chinese)

2416 959 Liu, X. Farmland carbon pool composition and emissions characteristics of various land use
2417 types in Fuzhou. 2020. (In Chinese)

2418   960   Du, C. Seasonal dynamics of soil microbial communities under different forest types in the
2419   Xinjiangshan Forest Region of Qinling Mountains. 2018. (In Chinese)

2420   961   Xu, Y. Mechanisms of Greenhouse Gas Emissions and Soil Organic Carbon Dynamics from
2421   Rice-rapeseed Rotation in Different Water-saving Irrigation Paddy Fields. 2016. (In Chinese)

2422   962   Huang, T. Effects of different soil and water loss control measures on surface runoff and soil
2423   nutrients in camellia forest in purple soil region. 2018. (In Chinese)

2424   963   Du, L. CO_2 emission from red soil and its influence factors in mid-subtopical China. 2006. (In
2425   Chinese)

2426   964   Li, S. Study on Resource Utilization Efficiency and Soil Environmental Effects of
2427   Multi-cropping Planting System in Red Upland Soil. 2021. (In Chinese)

2428   965   Yang, F. Non-target effects of naphthalene on soil respiration and biochemical characteristics in
2429   the subalpine forest of western Sichuan, China. 2018. (In Chinese)

2430   966   Li, X. Effects of Close-to-nature Forest Reconstruction on Distribution Patterns of Carbon
2431   Storage in Young and Middle Age Forests in Ningbo Area. 2019. (In Chinese)

2432   967   Feng, X. Effects of under-forest economic model of Pinus massoniana on soil active carbon and
2433   soil respiration in Changting. 2017. (In Chinese)

2434   968   Ma, T. Effect of thinning on soil nitrous oxide fluxes in Pinus massoniana Plantation. 2016. (In
2435   Chinese)

2436   969   Zhou, Q. Seasonal dynamics characteristics of soil and litter nutrients in Phoebe bournei,
2437   Cunninghamia lanceolata and its mixed plantation. 2020. (In Chinese)

2438   970   Huang, Q. Contribution and influencing factors of soil organic matter derived from
2439   microorganism during the restoration process of Pinus massoniana forest. 2020. (In Chinese)

2440   971   Liu, J. Effects of simulated climate warming on soil carbon and nitrogen transformation in the
2441   alpine forest of western Sichuan. 2012. (In Chinese)

2442   972   Wei, Y. Effects of Rice Cultivation on Peatland Soil Enzyme Activities. 2019. (In Chinese)

2443   973   Huo, L. The vertical distribution and stability of SOC in marsh before and after reclamation.
2444   2013. (In Chinese)

2445   974   Zhang, W. Dynamic and factors of microbial biomass carbon and dissolved organic carbon in
2446   Peatland. 2015. (In Chinese)

2447   975   Xiang W. The effect of biochars application on short-range ordere minerals in paddy soils. 2017.
2448   (In Chinese)