Amadi, C. C., Farrell, R. E., & Van Rees, K. C. (2017). Greenhouse gas emissions along a shelterbelt-cropped field transect. *Agriculture Ecosystems and Environment, 241*, 110-120.

Amadi, C. C., Farrell, R. E., & Van Rees, K. C. (2018). Dynamics of soil-derived greenhouse gas emissions from shelterbelts under elevated soil moisture conditions in a semi-arid prairie environment. *Agroforestry Systems, 92*(2), 321-334.

Amadori, C., Dieckow, J., Zanatta, J. A., de Moraes, A., Zaman, M., & Bayer, C. (2022). Nitrous oxide and methane emissions from soil under integrated farming systems in southern Brazil. *Science of the Total Environment, 828*, 154555.

Aronson, E. L., Dierick, D., Botthoff, J., Oberbauer, S., Zelikova, T. J., Harmon, T. C., . . . Pinto‐Tomás, A. A. (2019). ENSO‐influenced drought drives methane flux dynamics in a tropical wet forest soil. *Journal of Geophysical Research: Biogeosciences, 124*(7), 2267-2276.

Aronson, E. L., Goulden, M. L., & Allison, S. D. (2019). Greenhouse gas fluxes under drought and nitrogen addition in a Southern California grassland. *Soil Biology and Biochemistry, 131*, 19-27.

Baah-Acheamfour, M., Carlyle, C. N., Lim, S. S., Bork, E. W., & Chang, S. X. (2016). Forest and grassland cover types reduce net greenhouse gas emissions from agricultural soils. *Science of the Total Environment, 571*, 1115-1127. doi:10.1016/j.scitotenv.2016.07.106

Bai, Y., Li, X., Wen, W., Mi, X., Li, R., Huang, Q., & Zhang, M. (2018). CO2, CH4 and N2O flux changes in degraded grassland soil of Inner Mongolia, China. *Journal of Arid Land, 10*(3), 347-361.

Billings, S., Richter, D., & Yarie, J. (2000). Sensitivity of soil methane fluxes to reduced precipitation in boreal forest soils. *Soil Biology and Biochemistry, 32*(10), 1431-1441.

Borken, W., Brumme, R., & Xu, Y. J. (2000). Effects of prolonged soil drought on CH4 oxidation in a temperate spruce forest. *Journal of Geophysical Research: Atmospheres, 105*(D6), 7079-7088.

Borken, W., Davidson, E. A., Savage, K., Sundquist, E. T., & Steudler, P. (2006). Effect of summer throughfall exclusion, summer drought, and winter snow cover on methane fluxes in a temperate forest soil. *Soil Biology and Biochemistry, 38*(6), 1388-1395.

Bowden, R., Rullo, G., Stevens, G., & Steudler, P. (2000). *Soil fluxes of carbon dioxide, nitrous oxide, and methane at a productive temperate deciduous forest* (0047-2425). Retrieved from

Butterbach-Bahl, K., Kock, M., Willibald, G., Hewett, B., Buhagiar, S., Papen, H., & Kiese, R. (2004). Temporal variations of fluxes of NO, NO2, N2O, CO2, and CH4in a tropical rain forest ecosystem. *Global Biogeochemical Cycles, 18*(3), n/a-n/a. doi:10.1029/2004gb002243

Butterbach-Bahl, K., & Papen, H. (2002). Four years continuous record of CH4-exchange between the atmosphere and untreated and limed soil of a N-saturated spruce and beech forest ecosystem in Germany. *Plant and Soil, 240*(1), 77-90.

Carmo, J. B. d., de Sousa Neto, E. R., Duarte-Neto, P. J., Ometto, J. P. H. B., & Martinelli, L. A. (2012). Conversion of the coastal Atlantic forest to pasture: Consequences for the nitrogen cycle and soil greenhouse gas emissions. *Agriculture, Ecosystems & Environment, 148*, 37-43. doi:10.1016/j.agee.2011.11.010

Castaldi, S., & Fierro, A. (2005). Soil-atmosphere methane exchange in undisturbed and burned Mediterranean shrubland of southern Italy. *Ecosystems, 8*(2), 182-190.

Castro, M. S., Steudler, P. A., Melillo, J. M., Aber, J. D., & Bowden, R. D. (1995). Factors controlling atmospheric methane consumption by temperate forest soils. *Global Biogeochemical Cycles, 9*(1), 1-10.

Chai, L. L., Hernandez-Ramirez, G., Hik, D. S., Barrio, I. C., Frost, C. M., Soto, C. C., & Esquivel-Hernandez, G. (2020). A methane sink in the Central American high elevation paramo: Topographic, soil moisture and vegetation effects. *Geoderma, 362*. doi:ARTN 114092

10.1016/j.geoderma.2019.114092

Chen, P., Zhou, M., Wang, S., Luo, W., Peng, T., Zhu, B., & Wang, T. (2020). Effects of afforestation on soil CH4 and N2O fluxes in a nsubtropical karst landscape. *Science of the Total Environment, 705*, 135974. doi:10.1016/j.scitotenv.2019.135974

Chen, Q., Zhu, R., Wang, Q., & Xu, H. (2014). Methane and nitrous oxide fluxes from four tundra ecotopes in Ny-Ålesund of the High Arctic. *Journal of Environmental Sciences, 26*(7), 1403-1410.

Chen, W., Zheng, X., Chen, Q., Wolf, B., Butterbach-Bahl, K., Brüggemann, N., & Lin, S. (2013). Effects of increasing precipitation and nitrogen deposition on CH4 and N2O fluxes and ecosystem respiration in a degraded steppe in Inner Mongolia, China. *Geoderma, 192*, 335-340.

Chen, W. N., Zhang, F. Y., Wang, B. X., Wang, J. S., Tian, D. S., Han, G. X., . . . Niu, S. L. (2019). Diel and Seasonal Dynamics of Ecosystem-Scale Methane Flux and Their Determinants in an Alpine Meadow. *Journal of Geophysical Research-Biogeosciences, 124*(6), 1731-1745. doi:10.1029/2019jg005011

Czóbel, S., Horváth, L., Szirmai, O., Balogh, J., Pintér, K., Németh, Z., . . . Tuba, Z. (2010). Comparison of N2O and CH4 fluxes from Pannonian natural ecosystems. *European Journal of Soil Science, 61*(5), 671-682.

D'Imperio, L., Nielsen, C. S., Westergaard‐Nielsen, A., Michelsen, A., & Elberling, B. (2017). Methane oxidation in contrasting soil types: Responses to experimental warming with implication for landscape‐integrated CH4 budget. *Global Change Biology, 23*(2), 966-976.

Davidson, E. A., Ishida, F. Y., & Nepstad, D. C. (2004). Effects of an experimental drought on soil emissions of carbon dioxide, methane, nitrous oxide, and nitric oxide in a moist tropical forest. *Global Change Biology, 10*(5), 718-730.

Davidson, E. A., Nepstad, D. C., Ishida, F. Y., & Brando, P. M. (2008). Effects of an experimental drought and recovery on soil emissions of carbon dioxide, methane, nitrous oxide, and nitric oxide in a moist tropical forest. *Global Change Biology, 14*(11), 2582-2590.

De Bernardi, M., Priano, M. E., Fernández, M. E., Gyenge, J., & Juliarena, M. P. (2022). Impact of land use change on soil methane fluxes and diffusivity in Pampean plains, Argentina. *Agriculture, Ecosystems & Environment, 329*, 107866.

Delgado, J., & Mosier, A. (1996). *Mitigation alternatives to decrease nitrous oxides emissions and urea‐nitrogen loss and their effect on methane flux* (0047-2425). Retrieved from

Dijkstra, F. A., Morgan, J. A., Follett, R. F., & Lecain, D. R. (2013). Climate change reduces the net sink of CH4 and N2O in a semiarid grassland. *Glob Chang Biol, 19*(6), 1816-1826. doi:10.1111/gcb.12182

Dijkstra, F. A., Morgan, J. A., von Fischer, J. C., & Follett, R. F. (2011). Elevated CO2 and warming effects on CH4 uptake in a semiarid grassland below optimum soil moisture. *Journal of Geophysical Research: Biogeosciences, 116*(G1).

Dobbie, K., & Smith, K. (1996). Comparison of CH4 oxidation rates in woodland, arable and set aside soils. *Soil Biology and Biochemistry, 28*(10-11), 1357-1365.

Dong, Y., Scharffe, D., Lobert, J., Crutzen, P., & Sanhueza, E. (1998). Fluxes of CO2, CH4 and N2O from a temperate forest soil: the effects of leaves and humus layers. *Tellus B, 50*(3), 243-252.

Doukalianou, F., Radoglou, K., Agnelli, A. E., Kitikidou, K., Milios, E., Orfanoudakis, M., & Lagomarsino, A. (2019). Annual Greenhouse-Gas Emissions from Forest Soil of a Peri-Urban Conifer Forest in Greece under Different Thinning Intensities and Their Climate-Change Mitigation Potential. *Forest Science, 65*(4), 387-400. doi:10.1093/forsci/fxy069

Duan, B., Cai, T., Man, X., Xiao, R., Gao, M., Ge, Z., & Mencuccini, M. (2022). Different variations in soil CO2, CH4, and N2O fluxes and their responses to edaphic factors along a boreal secondary forest successional trajectory. *Science of the Total Environment*, 155983.

Dubbs, L. L., & Whalen, S. C. (2010). Reduced net atmospheric CH4 consumption is a sustained response to elevated CO2 in a temperate forest. *Biology and Fertility of Soils, 46*(6), 597-606.

Epstein, H. E., Burke, I. C., Mosier, A. R., & Hutchinson, G. L. (1998). Plant functional type effects on trace gas fluxes in the shortgrass steppe. *Biogeochemistry, 42*(1), 145-168.

Erickson, H. E., & Perakis, S. S. (2014). Soil fluxes of methane, nitrous oxide, and nitric oxide from aggrading forests in coastal Oregon. *Soil Biology and Biochemistry, 76*, 268-277. doi:10.1016/j.soilbio.2014.05.024

Fang, H., Cheng, S., Yu, G., Cooch, J., Wang, Y., Xu, M., . . . Li, Y. (2014). Low-level nitrogen deposition significantly inhibits methane uptake from an alpine meadow soil on the Qinghai–Tibetan Plateau. *Geoderma, 213*, 444-452. doi:10.1016/j.geoderma.2013.08.006

Fang, H., Yu, G., Cheng, S., Zhu, T., Wang, Y., Yan, J., . . . Zhou, M. (2010). Effects of multiple environmental factors on CO 2 emission and CH 4 uptake from old-growth forest soils. *Biogeosciences, 7*(1), 395-407.

Fang, Y., Gundersen, P., Zhang, W., Zhou, G., Christiansen, J. R., Mo, J., . . . Zhang, T. (2009). Soil–atmosphere exchange of N2O, CO2 and CH4 along a slope of an evergreen broad-leaved forest in southern China. *Plant and Soil, 319*(1), 37-48.

Fest, B., Hinko-Najera, N., von Fischer, J. C., Livesley, S. J., & Arndt, S. K. (2016). Soil Methane Uptake Increases under Continuous Throughfall Reduction in a Temperate Evergreen, Broadleaved Eucalypt Forest. *Ecosystems, 20*(2), 368-379. doi:10.1007/s10021-016-0030-y

Flessa, H., Dörsch, P., & Beese, F. (1995). Seasonal variation of N2O and CH4 fluxes in differently managed arable soils in southern Germany. *Journal of Geophysical Research: Atmospheres, 100*(D11), 23115-23124.

Gong, Y., Sun, F., Wang, F., Lai, D. Y. F., Zhong, Q., Li, Y., . . . Wang, M. (2021). Seven years of wetter and delayed wet season enhanced soil methane uptake during the dry season in a tropical monsoon forest. *Catena, 203*. doi:10.1016/j.catena.2021.105276

Gulledge, J., & Schimel, J. P. (2000). Controls on Soil Carbon Dioxide and Methane Fluxes in a Variety of Taiga Forest Stands in Interior Alaska. *Ecosystems, 3*(3), 269-282. doi:10.1007/s100210000025

Guo, C., Zhang, L., Li, S., Li, Q., & Dai, G. (2020). Comparison of Soil Greenhouse Gas Fluxes during the Spring Freeze–Thaw Period and the Growing Season in a Temperate Broadleaved Korean Pine Forest, Changbai Mountains, China. *Forests, 11*(11), 1135.

Guo, X., Du, Y., Han, D., Xu, X., Zhang, F., Lin, L., . . . Cao, G. (2015). Effects of Landuse Change on CH 4 Soil-Atmospheric Exchange in Alpine Meadow on the Tibetan Plateau. *Polish Journal of Environmental Studies, 24*(4).

Hartmann, A. A., Buchmann, N., & Niklaus, P. A. (2011). A study of soil methane sink regulation in two grasslands exposed to drought and N fertilization. *Plant and Soil, 342*(1), 265-275.

He, G., Li, K., Liu, X., Gong, Y., & Hu, Y. (2014). Fluxes of methane, carbon dioxide and nitrous oxide in an alpine wetland and an alpine grassland of the Tianshan Mountains, China. *Journal of Arid Land, 6*(6), 717-724.

Hermesdorf, L., Elberling, B., D'Imperio, L., Xu, W., Lambæk, A., & Ambus, P. L. (2022a). Effects of fire on CO2, CH4 and N2O exchange in a well‐drained Arctic heath ecosystem. *Global Change Biology*.

Hermesdorf, L., Elberling, B., D'Imperio, L., Xu, W., Lambæk, A., & Ambus, P. L. (2022b). Effects of fire on CO2, CH4, and N2O exchange in a well‐drained Arctic heath ecosystem. *Global Change Biology, 28*(16), 4882-4899.

Hou, L.-Y., Wang, Z.-P., Wang, J.-M., Wang, B., Zhou, S.-B., & Li, L.-H. (2012). Growing season in situ uptake of atmospheric methane by desert soils in a semiarid region of northern China. *Geoderma, 189-190*, 415-422. doi:10.1016/j.geoderma.2012.05.012

Hu, Y., Xu, B., Wang, Y., He, Z., Zhang, P., & Wang, G. (2022). Reference for different sensitivities of greenhouse gases effluxes to warming climate among types of desert biological soil crust. *Science of the Total Environment, 830*, 154805.

Ishizuka, S., Sakata, T., Sawata, S., Ikeda, S., Sakai, H., Takenaka, C., . . . Takahashi, M. (2009). Methane uptake rates in Japanese forest soils depend on the oxidation ability of topsoil, with a new estimate for global methane uptake in temperate forest. *Biogeochemistry, 92*(3), 281-295. doi:10.1007/s10533-009-9293-0

Jia, R., Teng, J., Chen, M., Zhao, Y., & Gao, Y. (2018). The differential effects of sand burial on CO2, CH4, and N2O fluxes from desert biocrust-covered soils in the Tengger Desert, China. *Catena, 160*, 252-260.

Jones, S. P., Diem, T., Huaraca Quispe, L. P., Cahuana, A. J., Reay, D. S., Meir, P., & Teh, Y. A. (2016). Drivers of atmospheric methane uptake by montane forest soils in the southern Peruvian Andes. *Biogeosciences, 13*(14), 4151-4165.

Kagotani, Y., Hamabata, E., & Nakajima, T. (2001). Seasonal and spatial variations and the effects of clear-cutting in the methane absorption rates of a temperate forest soil. *Nutrient Cycling in Agroecosystems, 59*(2), 169-175.

Kammann, C., Grünhage, L., Jäger, H.-J., & Wachinger, G. (2001). Methane fluxes from differentially managed grassland study plots: the important role of CH4 oxidation in grassland with a high potential for CH4 production. *Environmental Pollution, 115*(2), 261-273.

Kamran, M., Yan, Z., Chang, S., Chen, X., Ahmad, I., Jia, Q., . . . Hou, F. (2022). Enhancing resource use efficiency of alfalfa with appropriate irrigation and fertilization strategy mitigate greenhouse gases emissions in the arid region of Northwest China. *Field Crops Research, 289*, 108715.

Keller, M., & Reiners, W. A. (1994). Soil‐atmosphere exchange of nitrous oxide, nitric oxide, and methane under secondary succession of pasture to forest in the Atlantic lowlands of Costa Rica. *Global Biogeochemical Cycles, 8*(4), 399-409.

Keller, M., Veldkamp, E., Weitz, A. M., & Reiners, W. A. (1993). Effect of pasture age on soil trace-gas emissions from a deforested area of Costa Rica.

Kessavalou, A., Mosier, A. R., Doran, J. W., Drijber, R. A., Lyon, D. J., & Heinemeyer, O. (1998). *Fluxes of carbon dioxide, nitrous oxide, and methane in grass sod and winter wheat‐fallow tillage management* (0047-2425). Retrieved from

Kiese, R., Hewett, B., Graham, A., & Butterbach‐Bahl, K. (2003). Seasonal variability of N2O emissions and CH4 uptake by tropical rainforest soils of Queensland, Australia. *Global Biogeochemical Cycles, 17*(2).

Kim, K., Daly, E. J., & Hernandez-Ramirez, G. (2021). Perennial grain cropping enhances the soil methane sink in temperate agroecosystems. *Geoderma, 388*, 114931.

Klemedtsson, Å. K., & Klemedtsson, L. (1997). Methane uptake in Swedish forest soil in relation to liming and extra N-deposition. *Biology and Fertility of Soils, 25*(3), 296-301.

Koide, T., Saito, H., Shirota, T., Iwahana, G., Lopez c, M. L., Maximov, T. C., . . . Hatano, R. (2010). Effects of changes in the soil environment associated with heavy precipitation on soil greenhouse gas fluxes in a Siberian larch forest near Yakutsk. *Soil Science and Plant Nutrition, 56*(4), 645-662. doi:10.1111/j.1747-0765.2010.00484.x

Konda, R., Ohta, S., Ishizuka, S., Arai, S., Ansori, S., Tanaka, N., & Hardjono, A. (2008). Spatial structures of N2O, CO2, and CH4 fluxes from Acacia mangium plantation soils during a relatively dry season in Indonesia. *Soil Biology and Biochemistry, 40*(12), 3021-3030.

Kulmala, L., Aaltonen, H., Berninger, F., Kieloaho, A.-J., Levula, J., Bäck, J., . . . Pumpanen, J. (2014). Changes in biogeochemistry and carbon fluxes in a boreal forest after the clear-cutting and partial burning of slash. *Agricultural and Forest Meteorology, 188*, 33-44. doi:10.1016/j.agrformet.2013.12.003

Lessard, R., Rochette, P., Topp, E., Pattey, E., Desjardins, R., & Beaumont, G. (1994). Methane and carbon dioxide fluxes from poorly drained adjacent cultivated and forest sites. *Canadian Journal of Soil Science, 74*(2), 139-146.

Li, B., Chen, G., Lu, X., & Jiao, H. (2022). Effects of Nitrogen and Phosphorus Additions on Soil N2O Emissions and CH4 Uptake in a Phosphorus-Limited Subtropical Chinese Fir Plantation. *Forests, 13*(5), 772.

Li, Y., Wang, G., Bing, H., Wang, T., Huang, K., Song, C., . . . Chang, R. (2021). Watershed scale patterns and controlling factors of ecosystem respiration and methane fluxes in a Tibetan alpine grassland. *Agricultural and Forest Meteorology, 306*. doi:10.1016/j.agrformet.2021.108451

Li, Z., & Kelliher, F. M. (2007). Methane oxidation in freely and poorly drained grassland soils and effects of cattle urine application. *Journal of Environmental Quality, 36*(5), 1241-1248. doi:10.2134/jeq2006.0237

Li, Z., Zhang, Q., Li, Z., Qiao, Y., Du, K., Tian, C., . . . Li, F. (2022). Effects of no-tillage on greenhouse gas emissions in maize fields in a semi-humid temperate climate region. *Environmental Pollution, 309*, 119747. doi:10.1016/j.envpol.2022.119747

Lin, X., Wang, S., Hu, Y., Luo, C., Zhang, Z., Niu, H., & Xie, Z. (2014). Experimental Warming Increases Seasonal Methane Uptake in an Alpine Meadow on the Tibetan Plateau. *Ecosystems, 18*(2), 274-286. doi:10.1007/s10021-014-9828-7

Liu, C., Holst, J., Brüggemann, N., Butterbach-Bahl, K., Yao, Z., Han, S., . . . Zheng, X. (2008). Effects of irrigation on nitrous oxide, methane and carbon dioxide fluxes in an Inner Mongolian steppe. *Advances in Atmospheric Sciences, 25*(5), 748-756. doi:10.1007/s00376-008-0748-3

Liu, W., Yuan, W., Xu, S., Shao, C., Hou, L., Xu, W., . . . Kardol, P. (2021). Spatiotemporal patterns and drivers of methane uptake across a climate transect in Inner Mongolia Steppe. *Science of the Total Environment, 757*, 143768. doi:10.1016/j.scitotenv.2020.143768

Liu, Z., Li, H., Wang, T., Huang, N., Huang, Z., Luo, Y., . . . Baoyin, T. (2021). Grassland restoration measures alter soil methane uptake by changing community phylogenetic structure and soil properties. *Ecological Indicators, 133*. doi:10.1016/j.ecolind.2021.108368

Lu, X., Li, Y., Wang, H., Singh, B. P., Hu, S., Luo, Y., . . . Li, Y. (2019). Responses of soil greenhouse gas emissions to different application rates of biochar in a subtropical Chinese chestnut plantation. *Agricultural and Forest Meteorology, 271*, 168-179. doi:10.1016/j.agrformet.2019.03.001

Luo, G., Kiese, R., Wolf, B., & Butterbach-Bahl, K. (2013). Effects of soil temperature and moisture on methane uptake and nitrous oxide emissions across three different ecosystem types. *Biogeosciences, 10*(5), 3205-3219.

Ma, Z., Shrestha, B. M., Bork, E. W., Chang, S. X., Carlyle, C. N., Döbert, T. F., . . . Boyce, M. S. (2021). Soil greenhouse gas emissions and grazing management in northern temperate grasslands. *Science of the Total Environment, 796*, 148975.

Mander, Ü., Krasnova, A., Schindler, T., Megonigal, J. P., Escuer-Gatius, J., Espenberg, M., . . . Ranniku, R. (2022). Long-term dynamics of soil, tree stem and ecosystem methane fluxes in a riparian forest. *Science of the Total Environment, 809*, 151723.

Martins, C. S. C., Nazaries, L., Delgado‐Baquerizo, M., Macdonald, C. A., Anderson, I. C., & Singh, B. K. (2021). Rainfall frequency and soil water availability regulate soil methane and nitrous oxide fluxes from a native forest exposed to elevated carbon dioxide. *Functional Ecology, 35*(8), 1833-1847. doi:10.1111/1365-2435.13853

Matson, A. L., Corre, M. D., Langs, K., & Veldkamp, E. (2017). Soil trace gas fluxes along orthogonal precipitation and soil fertility gradients in tropical lowland forests of Panama. *Biogeosciences, 14*(14), 3509-3524.

Mehmood, F., Wang, G., Gao, Y., Liang, Y., Zain, M., Rahman, S. U., & Duan, A. (2021). Impacts of Irrigation Managements on Soil CO2 Emission and Soil CH4 Uptake of Winter Wheat Field in the North China Plain. *Water, 13*(15). doi:10.3390/w13152052

Mei, B., Yue, H., Zheng, X., McDowell, W. H., Zhao, Q., Zhou, Z., & Yao, Z. (2018). Effects of grazing pattern on ecosystem respiration and methane flux in a sown pasture in Inner Mongolia, China. *Atmosphere, 10*(1), 5.

Merino, A. n., Pérez-Batallón, P., & Macı́as, F. (2004). Responses of soil organic matter and greenhouse gas fluxes to soil management and land use changes in a humid temperate region of southern Europe. *Soil Biology and Biochemistry, 36*(6), 917-925.

Mori, A., Hojito, M., Kondo, H., Matsunami, H., & Scholefield, D. (2005). Effects of plant species on CH4 and N2O fluxes from a volcanic grassland soil in Nasu, Japan. *Soil Science and Plant Nutrition, 51*(1), 19-27.

Morishita, T., Hatano, R., Nagata, O., Sakai, K., Koide, T., & Nakahara, O. (2004). Effect of nitrogen deposition on CH4 uptake in forest soils in Hokkaido, Japan. *Soil Science and Plant Nutrition, 50*(8), 1187-1194.

Mosier, A., & Delgado, J. (1997). Methane and nitrous oxide fluxes in grasslands in western Puerto Rico. *Chemosphere, 35*(9), 2059-2082.

Mosier, A., Klemedtsson, L., Sommerfeld, R., & Musselman, R. (1993). Methane and nitrous oxide flux in a Wyoming subalpine meadow. *Global Biogeochemical Cycles, 7*(4), 771-784.

Mosier, A., Schimel, D., Valentine, D., Bronson, K., & Parton, W. (1991). Methane and nitrous oxide fluxes in native, fertilized and cultivated grasslands. *Nature, 350*(6316), 330-332.

Otter, L. B., & Scholes, M. C. (2000). Methane sources and sinks in a periodically flooded South African savanna. *Global Biogeochemical Cycles, 14*(1), 97-111. doi:10.1029/1999gb900068

Palm, C. A., Alegre, J. C., Arevalo, L., Mutuo, P. K., Mosier, A. R., & Coe, R. (2002). Nitrous oxide and methane fluxes in six different land use systems in the Peruvian Amazon. *Global Biogeochemical Cycles, 16*(4), 21-21-21-13.

Pedersen, E. P., Elberling, B., & Michelsen, A. (2017). Seasonal variations in methane fluxes in response to summer warming and leaf litter addition in a subarctic heath ecosystem. *Journal of Geophysical Research: Biogeosciences, 122*(8), 2137-2153.

Perez-Quezada, J. F., Urrutia, P., Olivares-Rojas, J., Meijide, A., Sanchez-Canete, E. P., & Gaxiola, A. (2021). Long term effects of fire on the soil greenhouse gas balance of an old-growth temperate rainforest. *Science of the Total Environment, 755*(Pt 1), 142442. doi:10.1016/j.scitotenv.2020.142442

Peterjohn, W. T., Melillo, J. M., Steudler, P. A., Newkirk, K. M., Bowles, F. P., & Aber, J. D. (1994). Responses of trace gas fluxes and N availability to experimentally elevated soil temperatures. *Ecological Applications, 4*(3), 617-625.

Phillips, R. L., Whalen, S. C., & Schlesinger, W. H. (2001). Influence of atmospheric CO2 enrichment on methane consumption in a temperate forest soil. *Global Change Biology, 7*(5), 557-563.

Rao, X., Liu, C.-A., Tang, J.-W., Nie, Y., Liang, M.-Y., Shen, W.-J., & Siddique, K. H. (2021). Rubber-leguminous shrub systems stimulate soil N2O but reduce CO2 and CH4 emissions. *Forest Ecology and Management, 480*, 118665.

Raut, N., Sitaula, B. K., Bakken, L. R., & Dörsch, P. (2014). Fluxes of CH4, N2O, and kinetics of denitrification in disturbed and undisturbed forest soil in India. *Canadian Journal of Soil Science, 94*(2), 237-249. doi:10.4141/cjss2013-017

Sa, M. M. F., Schaefer, C., Loureiro, D. C., Simas, F. N. B., Alves, B. J. R., de Sa Mendonca, E., . . . Panosso, A. R. (2019). Fluxes of CO2, CH4, and N2O in tundra-covered and Nothofagus forest soils in the Argentinian Patagonia. *Science of the Total Environment, 659*, 401-409. doi:10.1016/j.scitotenv.2018.12.328

Sá, M. M. F., Schaefer, C. E. G., Loureiro, D. C., Simas, F. N., Alves, B. J., de Sá Mendonça, E., . . . Panosso, A. R. (2019). Fluxes of CO2, CH4, and N2O in tundra-covered and Nothofagus forest soils in the Argentinian Patagonia. *Science of the Total Environment, 659*, 401-409.

Saari, A., Heiskanen, J., & Martikainen, P. J. (1998). Effect of the organic horizon on methane oxidation and uptake in soil of a boreal Scots pine forest. *FEMS Microbiology Ecology, 26*(3), 245-255.

Saggar, S., Hedley, C. B., Giltrap, D. L., & Lambie, S. M. (2007). Measured and modelled estimates of nitrous oxide emission and methane consumption from a sheep-grazed pasture. *Agriculture, Ecosystems & Environment, 122*(3), 357-365. doi:10.1016/j.agee.2007.02.006

Schellenberg, D. L., Alsina, M. M., Muhammad, S., Stockert, C. M., Wolff, M. W., Sanden, B. L., . . . Smart, D. R. (2012). Yield-scaled global warming potential from N2O emissions and CH4 oxidation for almond (Prunus dulcis) irrigated with nitrogen fertilizers on arid land. *Agriculture, Ecosystems & Environment, 155*, 7-15.

Shi, L., Guo, Y., Ning, J., Lou, S., & Hou, F. (2020). Herbicide applications increase greenhouse gas emissions of alfalfa pasture in the inland arid region of northwest China. *PeerJ, 8*, e9231.

Shvaleva, A., Lobo-do-Vale, R., Cruz, C., Castaldi, S., Rosa, A., Chaves, M., & Pereira, J. (2011). Soil-atmosphere greenhouse gases (CO2, CH4 and N2O) exchange in evergreen oak woodland in southern Portugal. *Plant, Soil and Environment, 57*(10), 471-477.

St Pierre, K. A., Danielsen, B. K., Hermesdorf, L., D'Imperio, L., Iversen, L. L., & Elberling, B. (2019). Drivers of net methane uptake across Greenlandic dry heath tundra landscapes. *Soil Biology and Biochemistry, 138*, 107605.

Steinkamp, R., Butterbach-Bahl, K., & Papen, H. (2001). Methane oxidation by soils of an N limited and N fertilized spruce forest in the Black Forest, Germany. *Soil Biology and Biochemistry, 33*(2), 145-153.

Suwanwaree, P., & Robertson, G. P. (2005). Methane oxidation in forest, successional, and no‐till agricultural ecosystems: Effects of nitrogen and soil disturbance. *Soil Science Society of America Journal, 69*(6), 1722-1729.

Teng, J. L., Jia, R. L., Hu, Y. G., Xu, B. X., Chen, M. C., & Zhao, Y. (2016). Effects of sand burial on fluxes of greenhouse gases from the soil covered by biocrust in an arid desert region. *Ying Yong Sheng tai xue bao= The Journal of Applied Ecology, 27*(3), 723-734.

Tian, S., Wang, Y., Ning, T., Zhao, H., Wang, B., Li, N., . . . Chi, S. (2013). Greenhouse gas flux and crop productivity after 10 years of reduced and no tillage in a wheat-maize cropping system. *PLoS ONE, 8*(9), e73450. doi:10.1371/journal.pone.0073450

Torn, M. S., & Harte, J. (1996). Methane consumption by montane soils: implications for positive and negative feedback with climatic change. *Biogeochemistry, 32*(1), 53-67.

Vantellingen, J., & Thomas, S. C. (2021). Skid Trail Effects on Soil Methane and Carbon Dioxide Flux in a Selection-Managed Northern Hardwood Forest. *Ecosystems, 24*(6), 1402-1421. doi:10.1007/s10021-020-00591-8

Veldkamp, E., Koehler, B., & Corre, M. D. (2013). Indications of nitrogen-limited methane uptake in tropical forest soils. *Biogeosciences, 10*(8), 5367-5379.

Verchot, L. V., Dannenmann, M., Kengdo, S. K., Njine-Bememba, C. B., Rufino, M. C., Sonwa, D. J., & Tejedor, J. (2020). Land-use change and Biogeochemical controls of soil CO2, N2O and CH4 fluxes in Cameroonian forest landscapes. *Journal of Integrative Environmental Sciences, 17*(3), 45-67.

Verchot, L. V., Davidson, E. A., Cattânio, J. H., & Ackerman, I. L. (2000). Land-use change and biogeochemical controls of methane fluxes in soils of eastern Amazonia. *Ecosystems, 3*(1), 41-56.

Wang, C. J., Tang, S. M., Wilkes, A., Jiang, Y. Y., Han, G. D., & Huang, D. (2012). Effect of stocking rate on soil-atmosphere CH4 flux during spring freeze-thaw cycles in a northern desert steppe, China. *PLoS ONE, 7*(5), e36794. doi:10.1371/journal.pone.0036794

Wang, H., Liu, S., Mo, J., & Zhang, T. (2010). Soil-atmosphere exchange of greenhouse gases in subtropical plantations of indigenous tree species. *Plant and Soil, 335*(1), 213-227.

Wang, H., Liu, S., Wang, J., Shi, Z., Lu, L., Zeng, J., . . . Yu, H. (2013). Effects of tree species mixture on soil organic carbon stocks and greenhouse gas fluxes in subtropical plantations in China. *Forest Ecology and Management, 300*, 4-13.

Wang, J., Hayes, F., Chadwick, D. R., Hill, P. W., Mills, G., & Jones, D. L. (2019). Short-term responses of greenhouse gas emissions and ecosystem carbon fluxes to elevated ozone and N fertilization in a temperate grassland. *Atmospheric Environment, 211*, 204-213.

Wang, J., Luo, Y., Quan, Q., Ma, F., Tian, D., Chen, W., . . . Niu, S. (2021). Effects of warming and clipping on CH4 and N2O fluxes in an alpine meadow. *Agricultural and Forest Meteorology, 297*, 108278.

Wang, J., Quan, Q., Chen, W., Tian, D., Ciais, P., Crowther, T. W., . . . Niu, S. (2021). Increased CO2 emissions surpass reductions of non-CO2 emissions more under higher experimental warming in an alpine meadow. *Science of the Total Environment, 769*, 144559. doi:10.1016/j.scitotenv.2020.144559

Wang, X., Gao, S., Chen, J., Yao, Z., & Zhang, X. (2022). Reducing soil CO2, CH4 and N2O emissions through management of harvest residues in Chinese fir plantation. *Forest Ecology and Management, 511*, 120140.

Wang, X., Zhang, Y., Huang, D., Li, Z., & Zhang, X. (2015). Methane uptake and emissions in a typical steppe grazing system during the grazing season. *Atmospheric Environment, 105*, 14-21.

Wang, Y., Xue, M., Zheng, X., Ji, B., Du, R., & Wang, Y. (2005). Effects of environmental factors on N2O emission from and CH4 uptake by the typical grasslands in the Inner Mongolia. *Chemosphere, 58*(2), 205-215. doi:10.1016/j.chemosphere.2004.04.043

Wei, D., Xu, R., Tenzin, T., Wang, Y., & Wang, Y. (2015). Considerable methane uptake by alpine grasslands despite the cold climate: in situ measurements on the central Tibetan Plateau, 2008-2013. *Glob Chang Biol, 21*(2), 777-788. doi:10.1111/gcb.12690

Wen, F., Biederman, J. A., Hao, Y., Qian, R., Zheng, Z., Cui, X., . . . Wang, Y. (2024). Extreme drought alters methane uptake but not methane sink in semi-arid steppes of Inner Mongolia. *Science of the Total Environment, 915*, 169834.

Werner, C., Kiese, R., & Butterbach‐Bahl, K. (2007). Soil‐atmosphere exchange of N2O, CH4, and CO2 and controlling environmental factors for tropical rain forest sites in western Kenya. *Journal of Geophysical Research: Atmospheres, 112*(D3).

Werner, C., Zheng, X., Tang, J., Xie, B., Liu, C., Kiese, R., & Butterbach-Bahl, K. (2006). N2O, CH4 and CO2 emissions from seasonal tropical rainforests and a rubber plantation in Southwest China. *Plant and Soil, 289*(1), 335-353.

West, A., Brooks, P., Fisk, M., Smith, L. K., Holland, E., Jaeger, C., . . . Schmidt, S. (1999). Landscape patterns of CH4 fluxes in an alpine tundra ecosystem. *Biogeochemistry, 45*(3), 243-264.

Wu, F., Peng, C., Wang, C., Chen, H., Liu, W., Liu, Z., . . . Li, Y. (2022). Responses of soil CH4 fluxes to nitrogen addition in two tropical montane rainforests in southern China. *Forest Ecosystems, 9*, 100031.

Wu, J., Guo, W., Feng, J., Li, L., Yang, H., Wang, X., & Bian, X. (2014). Greenhouse gas emissions from cotton field under different irrigation methods and fertilization regimes in arid northwestern China. *The Scientific World Journal, 2014*(1), 407832.

Wu, J., Li, Q., Chen, J., Lei, Y., Zhang, Q., Yang, F., . . . Cheng, X. (2018). Afforestation enhanced soil CH4 uptake rate in subtropical China: Evidence from carbon stable isotope experiments. *Soil Biology and Biochemistry, 118*, 199-206.

Wu, J., Lu, M., Feng, J., Zhang, D., Chen, Q., Li, Q., . . . Cheng, X. (2019). Soil net methane uptake rates in response to short-term litter input change in a coniferous forest ecosystem of central China. *Agricultural and Forest Meteorology, 271*, 307-315.

XU, B.-X., HU, Y.-G., ZHANG, Z.-S., CHEN, Y.-L., ZHANG, P., & LI, G. (2014). Effects of experimental warming on CO2, CH4 and N2O fluxes of biological soil crust and soil system in a desert region. *Chinese Journal of Plant Ecology, 38*(8), 809.

Xu, M., Cheng, S., Fang, H., Yu, G., Gao, W., Wang, Y., . . . Li, L. (2014). Low-Level Nitrogen Addition Promotes Net Methane Uptake in a Boreal Forest across the Great Xing'an Mountain Region, China. *Forest Science, 60*(5), 973-981. doi:10.5849/forsci.13-075

Yamulki, S., & Morison, J. I. (2017). Annual greenhouse gas fluxes from a temperate deciduous oak forest floor. *Forestry: An International Journal of Forest Research, 90*(4), 541-552.

Yang, C., Li, G., Yan, L., Ma, W., Wu, J., Tan, Y., . . . Zhang, S. (2022). Effects of Plant Community Type on Soil Methane Flux in Semiarid Loess Hilly Region, Central Gansu Province, China. *Advances in Atmospheric Sciences, 39*(8), 1360-1374. doi:10.1007/s00376-022-1169-4

Yao, Z., Ma, L., Zhang, H., Zheng, X., Wang, K., Zhu, B., . . . Liu, C. (2019). Characteristics of annual greenhouse gas flux and NO release from alpine meadow and forest on the eastern Tibetan Plateau. *Agricultural and Forest Meteorology, 272*, 166-175.

Yi-gang, H., Yu-lan, F., Zhi-shan, Z., Lei, H., Peng, Z., & Bing-xin, X. (2014). Greenhouse gases fluxes of biological soil crusts and soil ecosystem in the artificial sand-fixing vegetation region in Shapotou area. *Yingyong Shengtai Xuebao, 25*(1).

Yu, L., Zhu, J., Ji, H., Bai, X., Lin, Y., Zhang, Y., . . . Zhou, W. (2021). Topography-related controls on N2O emission and CH4 uptake in a tropical rainforest catchment. *Science of the Total Environment, 775*, 145616. doi:10.1016/j.scitotenv.2021.145616

Yue, P., Cui, X. Q., Wu, W. C., Gong, Y. M., Li, K. H., Goulding, K., & Liu, X. J. (2019). Impacts of precipitation, warming and nitrogen deposition on methane uptake in a temperate desert. *Biogeochemistry, 146*(1), 17-29. doi:10.1007/s10533-019-00606-0

Yue, P., Zuo, X., Li, K., Li, X., Wang, S., & Misselbrook, T. (2022). Precipitation changes regulate the annual methane uptake in a temperate desert steppe. *Science of the Total Environment, 804*, 150172.

Yuping, Y., Liqing, S., Min, C., Zheng, Z., Jianwei, T., Yinghong, W., . . . Yuesi, W. (2008). Fluxes of CH4 and N2O from soil under a tropical seasonal rain forest in Xishuangbanna, Southwest China. *Journal of Environmental Sciences, 20*(2), 207-215.

Zhang, W., Mo, J., Zhou, G., Gundersen, P., Fang, Y., Lu, X., . . . Dong, S. (2008). Methane uptake responses to nitrogen deposition in three tropical forests in southern China. *Journal of Geophysical Research: Atmospheres, 113*(D11).

Zhang, Z., Wang, G., Wang, H., Qi, Q., Yang, Y., & He, J.-S. (2021). Warming and drought increase but wetness reduces the net sink of CH4 in alpine meadow on the Tibetan Plateau. *Applied Soil Ecology, 167*. doi:10.1016/j.apsoil.2021.104061

Zhao, H., Li, T., Li, L., & Hao, Y. (2017). A stable CH4 sink responding to extreme precipitation events in a fenced semiarid steppe. *Journal of Soils and Sediments, 17*(12), 2731-2741.

Zhao, J. F., Peng, S. S., Chen, M. P., Wang, G. Z., Cui, Y. B., Liao, L. G., . . . Tan, Z. H. (2019). Tropical forest soils serve as substantial and persistent methane sinks. *Scientific Reports, 9*(1), 16799. doi:10.1038/s41598-019-51515-z

Zhou, M., Wang, X., Ren, X., & Zhu, B. (2019). Afforestation and deforestation enhanced soil CH4 uptake in a subtropical agricultural landscape: Evidence from multi-year and multi-site field experiments. *Science of the Total Environment, 662*, 313-323. doi:10.1016/j.scitotenv.2019.01.247

Zhu, R., Chen, Q., Ding, W., & Xu, H. (2012). Impact of seabird activity on nitrous oxide and methane fluxes from High Arctic tundra in Svalbard, Norway. *Journal of Geophysical Research: Biogeosciences, 117*(G4).

程功, 刘廷玺, 王冠丽, 段利民, & 马立群. (2019). 科尔沁沙丘－草甸梯级生态系统CO2,CH4,N2O通量特征. doi:10.13869/j.cnki.rswc.2019.04.015

何方杰, 张劲松, & 孙守家. (2020). 隆宝滩保护区不同生态系统CH4和CO2通量差异及其影响因素. *生态学杂志, 39*(9), 11.

刘玲玲, 刘允芬, 温学发, & 王迎红. (2008). 千烟洲红壤丘陵区人工针叶林土壤CH4排放通量. *植物生态学报*.

王旭阳, 李典鹏, 孙涛, 孙霞, 贾宏涛, 李君, & 李新虎. (2022). 新疆干旱区作物体系土壤温室气体排放对覆膜的响应. *干旱区研究, 39*(1), 9.

张雪松, 申双和, 李俊, & 于强. (2006). 华北平原冬麦田土壤CH\_4的吸收特征研究. *大气科学学报, 29*(002), 181-188.