

Publication List: Chloé Wüst-Galley

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Wüst-Galley, C. and Leifeld, J. (2025) **The distribution and (future) use of Switzerland's organic soils**. Mires and Peat, Volume 32 (2025), Article 04, 17 pp <https://doi.org/10.19189/001c.130819>

Edlinger, A., Herzog, C., Garland, G., Walder, F., Banerjee, S., Keel, S. G., Mayer, J., Philippot, L., Romdhane, S., Schiedung, M., Schmidt, M. W. I., Seitz, B., Wüst-Galley, C., & van der Heijden, M. G. A. (2025). **Compost application enhances soil health and maintains crop yield: insights from 56 farmer-managed arable fields**. Journal of Sustainable Agriculture and Environment, 4(1), e70041. <https://doi.org/10.1002/sae2.70041>

Leifeld, J., Paul, S.M., Gross-Schmölders, M., Wang, Y., Wüst-Galley, C. (2025) **Crediting peatland rewetting for carbon farming: some considerations amidst optimism**. Mitig Adapt Strateg Glob Change 30, 13. <https://doi.org/10.1007/s11027-025-10203-2>

Sriskandarajah N., Wüst-Galley C., Heller S., Leifeld J., Määtä T., Ouyang Z., Runkle B. R. K., Schiedung M., Schmidt M. W. I., Tumber-Dávila S. J., Malhotra M. **Belowground plant allocation regulates rice methane emissions from degraded peat soils**. Scientific Reports, 14, 2024, 1-12. <https://doi.org/10.1038/s41598-024-64616-1>

Keel S., Bretscher D., Leifeld J., von Ow A., Wüst-Galley C. **Soil carbon sequestration potential bounded by population growth, land availability, food production, and climate change**. Carbon Management, 14, (1), 2023, 1-17. <https://doi.org/10.1080/17583004.2023.2244456>

Wüst-Galley C., Heller S., Ammann C., Paul S. M., Doetterl S., Leifeld J. **Methane and nitrous oxide emissions from rice grown on organic soils in the temperate zone**. Agriculture, Ecosystems & Environment, 356, 2023, 1-9. <https://doi.org/10.1016/j.agee.2023.108641>

Wüst-Galley, C., Volk, M., Bassin, S., 2020. **Interaction of climate change and nitrogen deposition on subalpine pastures**. Journal of Vegetation Science 00, 1-12. <https://doi.org/10.1111/jvs.12946>

Leifeld, J., Klein, K., Wüst-Galley, C., 2020. **Soil organic matter stoichiometry as indicator for peatland degradation**. Scientific Reports 10:7634, pp. 1-9. <https://doi.org/10.1038/s41598-020-64275-y>

Leifeld, J., Wüst-Galley, C., Page, S., 2019. **Intact and managed peatland soils as a source and sink of GHGs from 1850 to 2100**. Nature Climate Change 9, 945-947. <https://doi.org/10.1038/s41558-019-0615-5>

Wüst-Galley, C., Grünig, A., Leifeld, J., 2019. **Land use-driven historical soil carbon losses in Swiss peatlands**. Landscape Ecology, 1-15. <https://doi.org/10.1007/s10980-019-00941-5>

Keel, S.G., Anken, T., Büchi, L., Chervet, A., Fließbach, A., Flisch, R., Huguenin-Elie, O., Mäder, P., Mayer, J., Sinaj, S., Sturmy W., Wüst-Galley C., Zihlmann U., Leifeld J. 2019. **Loss of soil organic carbon in Swiss long-term agricultural experiments over a wide range of management practices.** Agriculture, Ecosystems & Environment 286, 106654
<https://doi.org/10.1016/j.agee.2019.106654>

Keel, S.G., Hirte, J., Abiven, S., Wüst-Galley, C., Leifeld, J., 2017. **Proper estimate of residue input as condition for understanding drivers of soil carbon dynamics.** Global change biology 23, 4455-4456. <https://doi.org/10.1111/ejss.12454>

Tanneberger, F., Moen, A., Joosten, H., Nilsen, N., et al. 2017. **The peatland map of Europe.** Mires and Peat 19, 1-22. <https://doi.org/10.19189/MaP.2016.OMB.264>

Wüst-Galley, C., Mössinger, E., Leifeld, J., 2016. **Loss of the soil carbon storage function of drained forested peatlands.** Mires and Peat 18, 1-22.
<https://doi.org/10.19189/MaP.2015.OMB.189>

Bellstedt, D.U., Galley, C., Pirie, M.D., Linder, H.P., 2012. **The migration of the palaeotropical arid flora: Zygothloideae as an example.** Systematic Botany 37, 951-959.
<https://doi.org/10.1600/036364412X656608>

Pirie, M.D., Humphreys, A.M., Antonelli, A., Galley, C., Linder, H.P., 2012. **Model uncertainty in ancestral area reconstruction: A parsimonious solution?** Taxon 61, 652-664.

Warren, B.H., Bakker, F.T., Bellstedt, D.U., Bytebier, B., Claßen-Bockhoff, R., Dreyer, L.L., Edwards, D., Forest, F., Galley, C., Hardy, C.R., 2011. **Consistent phenological shifts in the making of a biodiversity hotspot: the Cape flora.** BMC evolutionary biology 11, 39.
<https://doi.org/10.1186/1471-2148-11-39>

Linder, H.P., Baeza, M., Barker, N.P., Galley, C., Humphreys, A.M., Lloyd, K.M., Orlovich, D.A., Pirie, M.D., Simon, B.K., Walsh, N., 2010. **A generic classification of the Danthonioideae (Poaceae).** Annals of the Missouri Botanical Garden 97, 306-364.
<https://doi.org/10.3417/2009006>

Galley, C., Linder, H., Zimmermann, N., 2009. **Pentaschistis (Poaceae) diversity in the Cape mediterranean region: habitat heterogeneity and climate stability.** Global Ecology and Biogeography 18, 586-595. <https://doi.org/10.1111/j.1466-8238.2009.00468.x>

Verboom, G.A., Archibald, J.K., Bakker, F.T., Bellstedt, D.U., Conrad, F., Dreyer, L.L., Forest, F., Galley, C., Goldblatt, P., Henning, J.F., 2009. **Origin and diversification of the Greater Cape flora: ancient species repository, hot-bed of recent radiation, or both?** Molecular Phylogenetics and Evolution 51, 44-53. <https://doi.org/10.1016/j.ympev.2008.01.037>

Bellstedt, D., Van Zyl, L., Marais, E., Bytebier, B., De Villiers, C., Dreyer, L., Galley, C., Pirie, M., Linder, H., 2008. **A molecular phylogeny reveals evidence of rapid and recent radiation in Cape**

and Australian members of the genus *Zygophyllum*. South African Journal of Botany 2, 361.
<https://doi.org/10.1016/j.sajb.2008.01.031>

Pirie, M.D., Humphreys, A.M., Galley, C., Barker, N.P., Verboom, G.A., Orlovich, D., Draffin, S.J., Lloyd, K., Baeza, C.M., Negritto, M., 2008. **A novel supermatrix approach improves resolution of phylogenetic relationships in a comprehensive sample of danthonioid grasses.** Molecular Phylogenetics and Evolution 48, 1106-1119. <https://doi.org/10.1016/j.ympev.2008.05.030>

Barker, N., Galley, C., Verboom, G., Mafa, P., Gilbert, M., Linder, H., 2007. **The phylogeny of the austral grass subfamily Danthoioideae: evidence from multiple data sets.** Plant Systematics and Evolution 264, 135-156. <https://doi.org/10.1007/s00606-006-0479-9>

Galley, C., Linder, H.P., 2007. **The phylogeny of the Pentaschistis clade (Danthoioideae, Poaceae) based on chloroplast DNA, and the evolution and loss of complex characters.** Evolution: International Journal of Organic Evolution 61, 864-884.
<https://doi.org/10.1111/j.1558-5646.2007.00067.x>

Galley, C., Bytebier, B., Bellstedt, D.U., Peter Linder, H., 2006. **The Cape element in the Afrotropical flora: from Cape to Cairo?** Proceedings of the Royal Society B: Biological Sciences 274, 535-543. <https://doi.org/10.1098/rspb.2006.0046>

Galley, C., Linder, H.P., 2006. **Geographical affinities of the Cape flora, South Africa.** Journal of Biogeography 33, 236-250. <https://doi.org/10.1111/j.1365-2699.2005.01376.x>

Galley, C., Linder, H.P., 2006. **New species and taxonomic changes within *Pentaschistis* (Danthoioideae, Poaceae) from Western Cape, South Africa.** Bothalia 36, 157-162.
<https://doi.org/10.4102/abc.v36i2.354>

Non-peer-reviewed

Wüst-Galley C., Paul, S. Leifeld, J. (2025) **Accounting for greenhouse gas emissions from Switzerland's farmed transition soils.** *Agroscope Science*, 215, 1-9.

Fabian Y., Hutchings C., Wüst-Galley C., Jacot-Ammann K., Walder F., Holzkaemper A. **Alternative landwirtschaftliche Kulturen auf Feuchttackerflächen im Umfeld von Mooren in der Schweiz.** *Agroscope Science*, 190, 2024, 1-39.

Keel S., Ammann C., Bretscher D., Gross T., Guillaume T., Huguenin-Elie O., Moll J., Nemecek T., Roesch A., Volk M., Wüst-Galley C., Leifeld J. **Dauergrünlandböden der Schweiz: Quelle oder Senke von Kohlendioxid?** *Agroscope Science*, 189, 2024, 1-21.

Fabian Y., Hutchings C., Wüst-Galley C., Jacot-Ammann K., Walder F., Holzkaemper A., Klaus V., van der Meer M., Kay S. **Standortangepasste Nutzungen für vernässende landwirtschaftliche Flächen: Hintergrund und allgemeine Informationen.** *Agroscope Transfer*, 539, 2024, 1-18.

Calanca P., Wüst-Galley C., Giuliani S., Erdin D. **Auswirkungen der Trockenheit auf die Produktivität des Schweizer Grünlands.** *Agrarforschung Schweiz*, 13, 2022, 135-144.

Wüst-Galley, C., Leifeld, J., 2021. **Kohlenstoffsенke Moorböden: Zustand und Entwicklung.** *HOTSPOT* 43, pp. 6-7.

Wüst-Galley, C., Keel, S.G., Leifeld, J., 2021. **Modelling SOC in Switzerland's mineral agricultural soils using RothC: Sensitivity analysis.** *Agroscope Science* 113, pp. 1-64.

Wüst-Galley, C., Keel, S.G., Leifeld, J., 2020. **A model-based carbon inventory for Switzerland's mineral agricultural soils using RothC.** *Agroscope Science* 105, pp. 1-110.

Wüst-Galley, C., Leifeld, J., 2019. **Entwicklung der Kohlenstoffvorräte und Treibhausgasemissionen der Moorböden seit 1850.** In: Stuber, M., Bürgi, M. (Eds.), *Vom «eroberten Land» zum Renaturierungsprojekt – Geschichte der Feuchtgebiete in der Schweiz seit 1700.* Pp 231-241. Paul Haupt Verlag, Bristol-Schriftenreihe 59. Bern, Switzerland.

Wüst-Galley, C., Grünig, A., Leifeld, J., 2015. **Locating organic soils for the Swiss greenhouse gas inventory.** *Agroscope Sci* 26, 1-99.

Galley, C.A., 2007. **Macro-evolutionary and macro-ecological studies on the Cape flora, with focus on the *Pentaschistis* clade (Poaceae).** PhD Thesis. Mathematisch-naturwissenschaftliche Fakultät. University of Zurich, Switzerland.