# José M. Grünzweig

*Curriculum Vitae*
**February 2023**

## Contact

phone: +972-8-9489782, cell: +972-54-8820271, email: jose.gruenzweig@mail.huji.ac.il
Website: https://gruenzweiglab.huji.ac.il/

## Education

| | |
|---|---|
| 1988 | B.Sc., the Hebrew University of Jerusalem, Rehovot, Israel |
| 1997 | Ph.D., the Hebrew University of Jerusalem, Rehovot, Israel |

## Employment history

| | |
|---|---|
| 2017 to date | Associate professor, the Hebrew University of Jerusalem, Israel |
| 2012-2013 | Guest professorship at the Swiss Federal Institute of Technology (ETH), Zurich, Switzerland |
| 2005-2017 | Senior lecturer, the Hebrew University of Jerusalem, Israel |
| 2004-2005 | Lecturer, the Hebrew University of Jerusalem, Israel |
| 2003-2004 | Research associate, Israel Institute of Technology – Technion, Haifa, Israel |
| 2000-2003 | Postdoctoral fellow, Weizmann Institute of Science, Rehovot, Israel |
| 1998-2000 | Postdoctoral fellow, University of Alaska Fairbanks, USA |
| 1997-1998 | Postdoctoral fellow, University of Basel, Switzerland |

## Current major research projects

| | |
|---|---|
| 2019-2023 | Israel Science Foundation, "Dryland-specific mechanisms of organic matter decay and their contribution to the $CO_2$ flux from decomposition in dry shrubland ecosystems". |
| 2020-2023 | Ministry of Science and Technology, "Consequences of invasive *Prosopis* species for ecosystems functioning around the Dead Sea and strategies to prevent future invasions". |
| 2020-2022 | Partnership programme Hebrew University of Jerusalem – University of Hohenheim, "Can livestock grazing save Israeli oak populations from the threat of climate change?". |
| 2021-2023 | Jewish National Fund, "Contribution of afforestation to climate change mitigation along the precipitation gradient in Israel" |
| 2021-2024 | National Natural Science Foundation of China - Israel Science Foundation, "Linking ecohydrology and carbon sequestration in semiarid forests subjected to contrasting climate seasonality". |
| 2022-2025 | Ministry of Environmental Protection, "Evaluating the effects of climatic changes on ecosystem services of Mediterranean forests and woodlands in Israel". |
| 2022-2025 | Jewish National Fund, "Sustainable grazing management in forests and grasslands - Adaptive multi-paddock grazing and consequences for ecosystem services". |
| 2023-2026 | DFG Middle East, "Decoupling above- from belowground litter decomposition and impacts on stabilization of soil organic matter with increasing aridity". |

## Publications in peer-reviewed journals (last 5 years)

Liu L, Sayer EJ, Deng M, Li P, Liu W, Wang X, Yang S, Huang J, Luo J, Su Y, **Grünzweig JM**, Jiang L, Hu S, Piao S. 2022. The grassland carbon cycle: mechanisms, responses to global changes, and potential contribution to carbon neutrality. Fundamental Research (in press). doi 10.1016/j.fmre.2022.09.028.

**Grünzweig JM**, de Boeck HJ, Rey A, Santos MJ, Adam O, Bahn M, Belnap J, Deckmyn G, Dekker SC, Flores O, Gliksman D, Helman D, Hultine KR, Liu L, Meron E, Michael Y, Sheffer E, Throop HL, Tzuk O, Yakir D. 2022. Dryland mechanisms could widely control ecosystem functioning in a drier and warmer world. *Nature Ecology & Evolution* 6, 1064–1076. doi 10.1038/s41559-022-01779-y.

Oren I, Mannerheim N, Fangmeier A, Buchmann N, **Grünzweig JM**. 2022. Patterns of total root and shoot carbon dioxide fluxes and their impact on daily tree carbon budget in large tropical tree saplings. *Tree Physiology* 42, 958–970. doi 10.1093/treephys/tpab169.

Netzer Y, Suued Y, Harel M, Ferman-Mintz D, Drori E, Munitz S, Stanevsky M, **Grünzweig JM**, Fait A, Ohana-Levi N, Nir G, Harari G. 2022. Forever young? Late shoot pruning affects phenological development, physiology, yield and wine quality of *Vitis vinifera* cv. Malbec. *Agriculture* 12, 605. doi 10.3390/agriculture12050605

Preisler Y, Hölttä T, **Grünzweig JM**, Oz I, Tatarinov F, Ruehr NK, Rotenberg E, Yakir D. 2022. The importance of tree internal water storage under drought conditions. *Tree Physiology* 42, 771–783. doi 10.1093/treephys/tpab144

Ohana-Levi N, Mintz DF, Hagag N, Stern Y, Munitz S, Friedman-Levi Y, Shacham N, **Grünzweig JM**, Netzer Y. 2022. Grapevine responses to site-specific spatiotemporal factors in a Mediterranean climate. *Agricultural Water Management* 259, 107226. doi 10.1016/j.agwat.2021.107226

**Grünzweig JM**, Gliksman D. 2021. Litter decomposition in Mediterranean pine forests subjected to climate change. In: Ne'eman G, Osem Y (eds.), Pines and Their Mixed Forest Ecosystems in the Mediterranean Basin. Cham, Switzerland: Springer International Publishing, pp. 325-342. doi 10.1007/978-3-030-63625-8_16

Wagner Y, Pozner E, Bar-On P, Ramon U, Raveh E, Neuhaus E, Cohen S, **Grünzweig JM**, Klein T. 2021. Rapid stomatal response in lemon saves trees and their fruit yields under summer desiccation, but fails under recurring droughts. *Agricultural and Forest Meteorology* 307, 108487. doi 10.1016/j.agrformet.2021.108487

Bahat I, Netzer Y, **Grünzweig JM**, Alchanatis V, Peeters A, Goldshtein E, Ohana-Levi N, Ben-Gal A, Cohen Y. 2021. In-season interactions between vine vigor, water status and wine quality in terrain-based management-zones in a 'Cabernet Sauvignon' vineyard. *Remote Sensing.* 13, 1636. doi 10.3390/rs13091636

Shtein I, Wolberg S, Munitz S, Zait Y, Rosenzweig T, **Grünzweig JM**, Ohana-Levi N, Netzer Y. 2021. Multi-seasonal water-stress memory versus temperature-driven dynamic structural changes in grapevine. *Tree Physiology.* 41, 1199–1211. doi 10.1093/treephys/tpaa181

Preisler Y, Tatarinov F, **Grünzweig JM**, Yakir D. 2021. Seeking the 'point of no return' in the sequence of events leading to mortality of mature trees. *Plant, Cell and Environment* 44, 1315–1328. doi 10.1111/pce.13942

Mannerheim N, Blessing CH, Oren I, **Grünzweig JM**, Bachofen C, Buchmann N. 2020. Carbon allocation to the root system of tropical tree *Ceiba pentandra* using $^{13}C$ pulse-labelling in an aeroponic facility. *Tree Physiology* 40, 350–366. doi 10.1093/treephys/tpz142

Väänänen PJ, Osem Y, Cohen S, **Grünzweig JM**. 2020. Differential drought resistance strategies of co-existing woodland species enduring the long rainless Eastern Mediterranean summer. *Tree Physiology* 40, 305–320. doi 10.1093/treephys/tpz130

Qubaja R, **Grünzweig JM**, Rotenberg E, Yakir D. 2020. Evidence for large carbon sink and long residence time in semi-arid forests based on 15-year flux and inventory records. *Global Change Biology* 26, 1626–1637. doi 10.1111/gcb.14927

Halbritter AH, De Boeck HJ, Eycott, AE, Reinsch S, Robinson DA, Vicca S, Berauer B, Christiansen CT, Estiarte M, **Grünzweig JM**, Gya R, Hansen K, Jentsch A, Lee H, Linder S, Marshall J, Peñuelas J, Schmidt IK, Stuart-Haëntjens E, Wilfahrt P, Vandvik V. 2020. The handbook for standardised field and laboratory measurements in terrestrial climate-change experiments and observational studies (ClimEx). *Methods in Ecology and Evolution* 11, 22–37. doi 10.1111/2041-210X.13331

De Boeck HJ, Bloor JM, Aerts R, Bahn M, Beier C, Emmett BA, Estiarte M, **Grünzweig JM**, Halbritter AH, Holub P, Jentsch A, Klem K, Kreyling J, Kroel-Dulay G, Larsen KS, Milcu A, Roy J, Sigurdsson BD, Smith MD, Sternberg M, Vandvik V, Wohlgemuth T, Nijs I, Knapp AK. 2020. Understanding ecosystems of the future will require more than realistic climate change experiments - A response to Korell et al. *Global Change Biology* 26, e6-e7. doi 10.1111/gcb.14854

Oren I, Mannerheim N, Dumbur R, Fangmeier A, Buchmann N, **Grünzweig JM**. 2020. Patterns and dynamics of canopy-root coupling in tropical tree saplings vary with light intensity but not with root depth. *New Phytologist* 225, 727-739. doi 10.1111/nph.16153
The paper is included in a Virtual issue on "Plant carbon allocation in a changing world – challenges and progress".

Sagi N, **Grünzweig JM**, Hawlena D. 2019. Burrowing detritivores regulate nutrient cycling in a desert ecosystem. *Proceedings of the Royal Society B: Biological Sciences* 286: 20191647. doi 10.1098/rspb.2019.1647. doi 10.1098/rspb.2019.1647

Hilman B, Muhr J, Trumbore SE, Kunert N, Carbone MS, Yuval P, Wright SJ, Moreno G, Pérez-Priego O, Migliavacca M, Carrara A, **Grünzweig JM**, Osem Y, Weiner T, Angert A. 2019. Comparison of $CO_2$ and $O_2$ fluxes demonstrate retention of respired $CO_2$ in tree stems from a range of tree species. *Biogeosciences* 16: 177-191.

Preisler Y, Tatarinov F, **Grünzweig JM**, Bert D, Ogée J, Wingate L, Rotenberg E, Rohatyn S, Herr N, Moshe I, Klein T, Yakir D. 2019. Mortality versus survival in drought-affected Aleppo pine forest depends on the extent of rock cover and soil stoniness. *Functional Ecology* 33: 901-912.

Gliksman D, Navon Y, Dumbur R, Haenel S, **Grünzweig JM**. 2018. Higher rates of decomposition in standing vs. surface litter in a Mediterranean ecosystem during the dry and the wet seasons. *Plant and Soil* 428, 427-439.

Gliksman D, Haenel S, **Grünzweig JM**. 2018. Biotic and abiotic modifications of leaf litter during dry periods affect litter mass loss and nitrogen loss during wet periods. *Functional Ecology* 32, 831-839.

Gliksman D, Haenel S, Osem Y, Yakir D, Zangy E, Preisler Y, **Grünzweig JM**. 2018. Litter decomposition in Mediterranean pine forests is enhanced by reduced canopy cover. *Plant and Soil* 422, 317-329. doi 10.1111/gcb.13465