

BG3.12

Carbon allocation in plants and ecosystems: mechanisms, responses and biogeochemical implications

8:30 Introduction

8:32 D529 I

EGU2020-10751

[Unrevealing tree carbon allocation beyond the stress – a case study of heat and drought impacts on *Pinus sylvestris*](#)

Romy Rehschuh, Andreas Gast, Andrea-Livia Jakab, Marco Lehmann, Matthias Saurer, Arthur Gessler, and Nadine Ruehr

8:40 D530 I

EGU2020-19100

[Contribution of the carbon sources involved in latex regeneration in rubber trees \(*Hevea brasiliensis*\): an in situ ¹³C₂ labelling experiment](#)

Dorine Desalme, Ornuma Duangngam, Philippe Thaler, Poonpipope Kasemsap, Jate Sathornkich, Duangrat Satakhun, Chompunut Chayawat, Nicolas Angeli, Pisamai Chantuma, and Daniel Epron

8:48 D531 I

EGU2020-7391

[Probability distributions of non-structural carbon ages and transit times provide insights in carbon allocation dynamics of mature trees](#)

David Herrera, Jan Muhr, Henrik Hartman, Christine Römermann, Susan Trumbore, and Carlos Sierra

9:05 D532 I

EGU2020-13469

[Respiration and C dynamics in Poplar roots](#)

Boaz Hilman, Jan Muhr, Juliane Helm, Iris Kuhlmann, and Susan Trumbore

9:08 D533 I

EGU2020-21669

[Common mycorrhizal networks of European Beech trees drive belowground allocation and distribution of plant-derived C in soil](#)

Bruna Imai, Stefan Gorka, Julia Wiesenbauer, Werner Mayerhofer, and Christina Kaiser

9:15 D534 I

EGU2020-12925

[The mycorrhizal tragedy of the commons](#)

Oskar Franklin, Torgny Näsholm, and Nils Henriksson

9:23 D535 I

EGU2020-21153

[Long turnover time and large sequestration potentials in a dry pine forest based on 15-year flux and inventory records](#)

Rafat Qubaja, Jose Grünzweig, Eyal Rotenberg, and Dan Yakir

9:30 D536 I

EGU2020-1070

[High temporal resolution ¹³C tracing to link xylem – phloem pathways of carbon in oak trees](#)

Akira L. Yoshikawa, Jasper Bloemen, Johannes Ingrisch, Henrik Hartmann, and Michael Bahn

9:35 D537 I

EGU2020-4839

[Potassium application to alleviate drought stress in cassava production: A growth chamber based carbon-13 pulse labelling experiment](#)

Jonas Van Laere, Annemie Willemen, Yang Ding, Hami Said, Christian Resch, Rebecca Hood-Nowotny, Roel Merckx, and Gerd Dercon

9:38 D538 I

EGU2020-1311

[Does carbon allocation determine the timing of autumn leaf senescence in deciduous trees?](#)

Matteo Campioli, **Bertold Mariën**, and Inge Dox

9:43 D539 I

EGU2020-1086

[Carbon allocation to wood formation in an unmanaged deciduous forest in Thuringia \(Germany\)-a](#)

[case study of biomass production efficiency](#)

Jingshu Wei, Maria Karamihalaki, Georg von Arx, and Flurin Babst

9:45 D540 I

EGU2020-3868

[Photosynthesis in a desert tree is driven by the highest light and temperature](#)

Daphna Uni, Efrat Sheffer, Gidon Winters, and Tamir Klein

9:50 D541 I

EGU2020-5947

[Sensitivity of global gross primary production to environmental drivers](#)

Wenjia Cai and Iain Colin Prentice

9:55 D542 I

EGU2020-18385

[Using a novel electrical measurement approach to measure the effects of liming on rooting parameters in German beech forests](#)

Oliver van Straaten, Jan Čermák, Larissa Kulp, and Ulrike Talkner

10:00 D544 I

EGU2020-22452

[Elevated CO₂ increases plant growth but reduces soil C storage under N limiting conditions](#)

Lucia M. Eder, Enrico Weber, Johannes Rousk, Marion Schrumpf, and Sönke Zaehle

10:05 D545 I

EGU2020-18374

[Effect of soil warming and N availability on the fate of recent carbon in subarctic grassland](#)

Kathiravan Meeran, Niel Verbrugghe, Lucia Fuchslueger, Johannes Ingrisch, Sara Vicca, Jennifer Soong, Lena Müller, Bjarni D. Sigurdsson, Ivan Janssens, and Michael Bahn

10:10 Final discussion