



POTSDAM INSTITUTE FOR
CLIMATE IMPACT RESEARCH

ISIMIP Forest Sector

Christopher Reyer, Mats Mahnken + PROFOUND/ISIMIP
modellers + data providers



Outline

- Report on activities
- Evaluation paper
- FORMASAM / ISIMIP2b runs
- Outlook ISIMIP3
- Discussion



Report

- PROFOUND Database & Data paper published
- ISIMIP2a runs @evaluation paper
- FORMASAM/ISIMIP2b scenarios developed
- ISIMIP2b runs @management paper
- ISIMIP3b move to country scale

The PROFOUND Database for evaluating vegetation models and simulating climate impacts on European forests

Christopher P. O. Reyer¹, Ramiro Silveyra Gonzalez¹, Klara Dolos², Florian Hartig³, Ylva Hauf¹, Matthias Noack⁴, Petra Lasch-Born¹, Thomas Rötzer⁵, Hans Pretzsch⁵, Henning Meessenburg⁶, Stefan Fleck⁶, Markus Wagner⁶, Andreas Bolte⁷, Tanja G. M. Sanders⁷, Pasi Kolari⁸, Annikki Mäkelä⁸, Timo Vesala⁸, Ivan Mammarella⁸, Jukka Pumpanen⁹, Alessio Collalti^{10,11}, Carlo Trotta¹¹, Giorgio Matteucci¹², Ettore D'Andrea¹², Lenka Foltýnová¹³, Jan Krejza¹³, Andreas Ibrom¹⁴, Kim Pilegaard¹⁴, Denis Loustau¹⁵, Jean-Marc Bonnefond¹⁵, Paul Berbigier¹⁵, Delphine Picart¹⁵, Sébastien Lafont¹⁵, Michael Dietze¹⁶, David Cameron¹⁷, Massimo Viero¹⁸, Hanqin Tian¹⁹, Alicia Palacios-Orueta²⁰, Victor Cicuendez²⁰, Laura Recuero²⁰, Klaus Wiese²⁰, Matthias Büchner¹, Stefan Lange¹, Jan Volkholz¹, Hyunjung Kim²¹, Joanna A. Horemans²², Friedrich Bohn²³, Jörg Steinkamp²⁴, Alexander Chikalanov²⁵, Graham P. Weedon²⁶, Justin Sheffield²⁷, Flurin Babst^{28,29}, Ilhusi Vega del Valle¹, Felicitas Suckow¹, Simon Martel¹⁶, Mats Mahnken¹, Martin Gutsch¹, and Katja Frieler¹

Dataset The PROFOUND database for evaluating vegetation models and simulating climate impacts on European forests Released

Cite as: Copy citation to clipboard

Reyer, Christopher; Silveyra Gonzalez, Ramiro; Dolos, Klara; Hartig, Florian; Hauf, Ylva; Noack, Matthias; Lasch-Born, Petra; Rötzer, Thomas; Pretzsch, Hans; Meessenburg, Henning; Fleck, Stefan; Wagner, Markus; Bolte, Andreas; Sanders, Tanja; Kolari, Pasi; Mäkelä, Annikki; Vesala, Timo; Mammarella, Ivan; Pumpanen, Jukka; Matteucci, Giorgio; Collalti, Alessio; D'Andrea, Ettore; Foltýnová, Lenka; Krejza, Jan; Ibrom, Andreas; Pilegaard, Kim; Loustau, Denis; Bonnefond, Jean-Marc; Berbigier, Paul; Picart, Delphine; Lafont, Sébastien; Dietze, Michael; Cameron, David; Viero, Massimo; Tian, Hanqin; Palacios-Orueta, Alicia; Cicuendez, Victor; Recuero, Laura; Wiese, Klaus; Büchner, Matthias; Lange, Stefan; Volkholz, Jan; Kim, Hyunjung; Weedon, Graham; Sheffield, Justin; Vega del Valle, Ilhusi; Suckow, Felicitas; Horemans, Joanna; Martel, Simon; Bohn, Friedrich; Steinkamp, Jörg; Chikalanov, Alexandre; Mahnken, Mats; Gutsch, Martin; Trotta, Carlo; Babst, Flurin; Frieler, Katja (2020): The PROFOUND database for evaluating vegetation models and simulating climate impacts on European forests. V. 0.3. GFZ Data Services. <http://doi.org/10.5880/PIK.2020.006>

Files

- Download: ProfoundData.zip (.sqlite) 2.6 Gb
- Download: ProfoundData_ASCII.zip 1.6 Gb
- Download: Soroe_DBH_H_AGE_20200428.zip 25 3.5 Kb
- Description: PROFOUNDdatabase.pdf 1.1 Mb
- Description: PROFOUNDsites.pdf 16.8 Mb
- Changelog: changelog_Profound-DB_v03.pdf 446.6 Kb

License: CC Attribution-NonCommercial 4.0 International (CC BY-NC 4.0)

Abstract

Version History:

29 April 2020: Release of Version 0.3

This is an updated version of Reyer et al., (2019), V. 0.1.1.12, <http://doi.org/10.5880/PIK.2019.008>. All changes and updates are documented in the changelog available via the data download section.

Current process-based vegetation models are complex scientific tools that require proper evaluation of the different processes included in the models to prove that the models can be used to integrate our understanding of forest ecosystems and project climate change impacts on forests. The PROFOUND database (PROFOUND DB) described here aims to bring together data from a wide range of data sources to evaluate vegetation models and simulate climate impacts at the forest stand scale.

It has been designed to fulfill two objectives:

- Allow for a thorough evaluation of complex, process-based vegetation models using multiple data

Discussion ISIMIP Regional Forest Sector