



# BJORN BROOKS

Research Scientist | **CARBON SOLUTIONS LLC**

## PROFILE

Bjorn is a dedicated research scientist specializing in analyzing the climatological considerations for carbon dioxide removal technologies. His work is marked by an integration of climate interactions, statistical methodologies, and cloud computing, all aimed at driving substantial advancements in addressing climate challenges. His career is rooted in earth and environmental sciences, including both governmental and private sector roles. Bjorn's contributions extend from atmosphere-biosphere CO<sub>2</sub> exchange to landscape ecological resilience. His expertise in cloud computing, climate modeling, and ecological analysis underscores his impactful contributions to the field.

## CONTACT INFORMATION

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[www.carbonsolutionsllc.com/](http://www.carbonsolutionsllc.com/)

## EDUCATION & TRAINING

**PhD** | Geology  
[Iowa State University](#) | 2003–2009  
**MSc** | Palaeobiology  
[University of Bristol](#) | 2000–2002  
**BS** | Biology  
[Iowa State University](#) | 1996–2000

## PROFESSIONAL EXPERIENCE

**Research Scientist** | [CARBON SOLUTIONS LLC](#) | 2023–Present  
Climate interactions for carbon dioxide removal, data and cyberinfrastructure.

**Data Scientist** | [Living Carbon](#) | 2021–2023  
Head forest carbon scientist. Responsible for environmental, ecological, and forest stand modeling. Ex-ante carbon accounting, risk assessment, systems analysis.

**Research Associate** | [NCICS](#) / [NOAA Cooperative Inst., Asheville, NC](#) | 2020–2021  
R&D team member focusing on the NOAA cloud data archive, data storage systems, and performance computing for scientific applications.

**Research Fellow** | [USDA Forest Service](#) | 2014–2019  
Researcher focusing on researching topics on landscape resilience through environmental remote sensing and spatial analysis. Co-developed the LandDAT system for landscape change analysis.

**Visiting Assistant Professor** | [St. Francis Xavier University, Nova Scotia](#) | 2008–2009  
Co-developed a multi-gas leak detection system for pinpointing unwanted emissions in oil & gas infrastructure. Taught geophysics, climatology, oceanography, quantitative methods in Earth Science.

**Postdoctoral Researcher** | [University of Illinois at Urbana-Champaign](#) | 2011–2013  
Climate model data lead for a terrestrial ecosystem modeling intercomparison project (PaleON).

**Postdoctoral Researcher** | [University of Wisconsin](#) | 2009–2011  
Researcher focusing on atmospheric tracer-transport modeling of CO<sub>2</sub>, eddy covariance QA/QC, and statistical data assimilation methods.

## PUBLICATIONS

1. Brooks, B.-G.J. et al. (2024). The performance of solvent-based direct air capture across geospatial and temporal climate regimes. *Frontiers in Climate, Carbon Dioxide Removal*. <https://doi.org/10.3389/fclim.2024.1394728>
2. Brooks, B.-G.J. & Lee, D.C. (2019). Feasibility of pattern type classification for landscape patterns using the AG-curve. *Landscape Ecology*. <https://doi.org/10.1007/s10980-019-00869-w>
3. Hurry, J., Risk, D., Lavoie, M., Brooks, B.-G.J., Phillips, C. & Göckede, M. (2016). Atmospheric monitoring and detection of fugitive emissions for Enhanced Oil Recovery. *International Journal of Greenhouse Gas Control*. <https://doi.org/10.1016/j.ijggc.2015.11.031>