

EGU22-1429

<https://doi.org/10.5194/egusphere-egu22-1429>

EGU General Assembly 2022

© Author(s) 2022. This work is distributed under the Creative Commons Attribution 4.0 License.



## Mapping the gender inequality of publishing in the Danish geosciences

Christine Benna Skytt-Larsen<sup>1</sup>, **Nanna Bjørnholt Karlsson**<sup>2</sup>, Katrine Juul Andresen<sup>3</sup>, Astrid Breck<sup>2</sup>, Trine Kobbel Sørensen<sup>2</sup>, and Maximilian Thomas Wedel<sup>1</sup>

<sup>1</sup>University of Copenhagen, Section of geography, Department of geoscience and natural resource management, Copenhagen K, Denmark (cbs@ign.ku.dk)

<sup>2</sup>Geological Survey of Denmark and Greenland, GEUS, Copenhagen K, Denmark

<sup>3</sup>Aarhus University, Department of Geoscience, Aarhus C, Denmark

The STEM (Science, Technology, Engineering and Mathematics) faculties in Denmark suffer from a dearth of women in tenured positions. This is particularly the case for the geosciences in spite of a seemingly equal distribution of men and women graduating in geoscience.

In this presentation, we highlight the disparities and processes that hinder women from progressing in an academic career in the geosciences in Denmark. We have collected data from Geocenter Denmark that comprises three institutions, Institute for Geoscience, University of Aarhus, Institute for Geoscience and Natural Resources, University of Copenhagen and the Geological Survey of Denmark and Greenland. The data include information on all publications from 2018-2020 including number of publications per researcher, number of (female) authors per publication, impact factor etc. A detailed study has been performed tracking the publication records of all PhD students employed at Geocenter Denmark from 2010-2017. Our data also detail the uptake and graduation of undergraduate, masters and PhD students.

Our results show that for the last 15 years, an equal number of men and women have graduated with a geoscience degree in Denmark. Similarly, on average an equal number of men and women have been awarded a geoscientific PhD degree.

Analysis of publications from PhD students reveals disparities between genders. Regardless of gender, PhD students publish on average the same number of first author publications during the early years of their career\* but male PhD students have more co-authorships. This suggests that female PhD students are not provided with the same opportunities for networking and co-authorship as their male colleagues.

This disparity continues on all levels, where more than 1/3 of all publications from Geocenter Denmark have no women on the author list. If the first author is male, the number of publications without any female co-authors further increases. Statistically, the chances of obtaining such a high number of publications without female co-authors by random is practically nil. We argue that

mechanisms are in place that exclude women from contributing to and co-authoring studies.

Number of publications is a key factor in academic hireability and can determine success with career progression, funding applications etc. Our data highlight a structural problem in placing a high emphasis on the number of publications.

Disclaimer: Due to lack of data, we consider only binary gender and thus we cannot represent the true non-binary gender diversity.

\*here defined as up to and including 3 years after PhD graduation.