

From the Editor

Why are there still too few women in forestry and science?

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As a woman in two areas with a shortage of women, science and forestry, I ask myself why women opt out from here. I myself really enjoy being in forestry research, with its many great colleagues, intriguing research questions and opportunities for professional and personal growth. However, we need to understand why many women do not find these arenas appealing.

The research about (the lack of) women in academia and all forms of gender biases does not stop to grow. Shortly after the covid19 close-down in spring 2020, reports unveiled the reduced scientific output of women (Andersen et al. 2020). It seems that the toll of child-caring was taken unequally by men and women. This may in particular affect early-career women that we already know are leaving academia in great numbers. This winter, societies are partly closed with extensive use of home office but with kindergartens and schools open in most places. It remains to see if the trend from spring will persist, or if the flexibility of home office without kids provides women with more time for research.

Time to time, ideas are thrown out that women are less “good” at research. However, gaps in scientific output and impact can largely be explained by drop-out rates and career length (Huang et al. 2020). The literature of gender biases in academia that disfavor women is extensive (Easterly and Ricard 2011), while new findings suggest that women in Nordic countries actually receive a minor gender premium upon evaluation (Carlsson et al. 2020). Large leaps have definitely been taken the last two decades, since it was found that the disadvantage of being a female applicant to medical research grants equaled about three publications in *Nature* or *Science* (Wennerås and Wold 1997). However, the share of female professors in the five Nordic countries (of which four countries are leading the Global Gender Gap Index 2020) is still similar to the EU level at about 20%. This is contrasting the long, steady trend of more women obtaining a PhD (NIFU 2020); actually today about half of the PhD students are women (Bergman and Rustad 2013).

There must be complex reasons behind these figures. I have already touched upon the gender bias. The gender equality paradox tells that in countries with generous public welfare, fewer women choose STEM (science, technology, engineering and mathematics) education. Differently from countries where school performance and job choice are key predictors for socio-economic life conditions, men and women in the Nordics can afford a decent job-family balance. As the traditional career-building period comes in parallel with caring for children, the every-day juggling exercise

can easily be overwhelming. Despite the convergence of parenthood roles in postmodernity, I think that women in general identify stronger than men do with the family care role, socialized to do so. A doctoral degree paves the way for well-paid and secure job opportunities outside academia. Gender strategies in academia often advise employers to provide alternative pathways to senior positions, but I have yet to meet professors from outside the traditional way. Women feel more often excluded from important professional and academic networks (Macoun and Miller 2014; Mandelco 2010). Changes will require that both formal and informal academic leaders show the way.

As shown by the pile of strategic reports, good intentions for promoting women are not lacking in institutions. However, some tactics may not have the desired effects, like the requirement to have both genders included in all committees. In places with few women, they will need to spend more time on committee work than their male colleagues do. Committees are important for the daily run of academia; however, spending time in most of them is not a good investment for promotion compared to publishing and applying for grants. Besides, who wants to be asked to join a committee not for their competence, but to represent a gender?

There is a substantial body of gender research in forestry. A SNS Nordic Forest Research report of women in forestry was recently released (Vennesland et al. 2020). It displays that the share of female students vary from 15% in Norway to almost 50% in Iceland, with the other countries being placed in between, with a similar trend in scientific staff. With the support of IUFRO, an important study of the impacts of gender in forestry research education has recently been initiated (Saarela 2020). Outside academia, the research stresses a conservative, dominant masculine culture (Follo 2011; Lidestav and Sjölander 2007). Moreover, the testimonies of sexual harassment put forward in the campaign #Slutavverkat (Johansson et al. 2018) bluntly manifest that forestry has a really serious job to do before men and women have equal opportunities. Gender equality is dependent upon much deeper changes in the profession and community than merely improving the shares of women among students and staff.

In Norway, we will shortly embark on a project to look into the fates of forestry candidates. The impression is that the share of female employees in forestry is considerably lower than in education. By tracing candidates educated more than 20 years ago, we will test the hypotheses that women are leaving operational forestry and the sector more than men do. It is particularly important to understand the reasons of the men and women who have left the sector. We hypothesize that being more socially similar and more numerous, men build and maintain professional networks from studies onwards more than women do which in turn affects job satisfaction.

For forestry to thrive in the future, it is of outermost importance that the sector manages to be attractive for studying and working, to retain good candidates and to be in synergy with the society. If many forestry candidates, men and women, do not think the sector offers attractive opportunities or do not feel belonging due to required conformity or harassments, it is very serious. Every business needs a diversity in values and backgrounds in order to foster new ideas and to understand the society's current norms. The society's requirements towards forestry is only growing and understanding them is thus more important than ever. In this way, there are many resemblances between forestry and science. None of the fields can afford that highly needed candidates opt out.

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