



FROM THREE DAYS TO THREE MONTHS  
AT THE WISSENSCHAFTSKOLLEG  
LINE V. UGELVIG

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I am an evolutionary biologist born in Denmark in 1979. While studying biology at the University of Copenhagen, I became interested in the evolutionary ecology of social insects, particularly their communication systems and collective behaviours that are essential to securing the integrity of their colonies. My M.Sc. work (2006) aimed at understanding the organisational structure and evolutionary history of the invasive garden ant, and later, as a research assistant at University of Regensburg (2007), I addressed how social life can facilitate resistance to microbial parasites in individual ants through social disease defences. During my Ph.D. (2010) at the University of Copenhagen, I studied parasites that infect entire ant colonies, i.e. *lycaenid* butterflies, by circumventing the ants' communication system. My current postdoctoral research at the IST Austria is a natural extension of my previous work, in that it aims to understand how ants detect microbial parasites and prevent their spread within the colony, i.e. the very foundation of the efficiency of their social disease defences. – Address: Section for Ecology and Evolution, University of Copenhagen, Universitetsparken 15, 2100 Copenhagen, Denmark.  
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I arrived at the Wiko at the start of the academic year full of excitement and anticipation for the coming three months, the culmination of being runner-up for the John Maynard Smith Prize 2013 awarded by the European Society of Evolutionary Biology. Had it not been for a visit at the Wiko back in 2006, I would not have known what to expect. At that time I was a research assistant in the group of Sylvia Cremer, and I had the chance to visit her during her Wiko Fellowship. My three-days' visit gave me a glimpse into Wiko

life and a sensation of its inspirational, engaging and supporting atmosphere. Hence my great excitement and anticipation on my return eight years later.

The timing of my three-months stay turned out to be optimal in several ways. First of all, arriving at the same time as most of the 2014/15 Fellows made it easy to settle in, a process that was greatly facilitated by joining the German class and also the various welcome events organised by the Wiko staff. Thinking back, the first two weeks felt like an extended game of memory or concentration: constantly trying to match up names and faces onto project descriptions in the Fellow book or job descriptions from the staff list – and, then, remember actual matches for more than ten minutes. At the same time, I was busy finishing up a manuscript that had been underway for more than a year, but now had a final submission deadline: twelve days post Wiko arrival. Thus, early on I came to appreciate my new office's quietness, isolation and not least proximity (I normally spend two hours commuting every day). In the manuscript we identified and quantified behavioural changes in infectious ants and their healthy nestmates and subsequently translated these changes into long-term disease dynamics. Our study revealed that the behavioural changes are indeed adaptive, i.e. they contain the spread of disease. At this point, few studies had investigated behavioural interaction networks of groups in a disease context, although it is clear that an individual's behaviours and interactions may have direct implications for its ability to withstand infection and for contracting the disease in the first place. We collaborated with theoretical biologists to get from our laboratory experiments to model predictions, an exercise that was very educational for me. It opened my eyes to the highly constructive feedback mechanisms that can be established between experimental and theoretical approaches – as well as the need for a very concise language. We submitted a revised version of the manuscript one day before my departure from Wiko, and it was accepted shortly after. Lastly, the timing of my stay was optimal, as I had to make decisions about my future job situation. I had an application pending for an individual postdoctoral grant at the Danish Council for Independent Research and knew that I would get the answer during my stay at the Wiko. It was gratifying to learn that I got the fellowship and in addition was invited to apply for the Sapere Aude Programme (also from the Danish Council for Independent Research), allowing me to extend the research project I had proposed. Having the time for proper reading and reflection on the overarching perspectives of my work, and discussing how to sell those ideas in an application with senior scholars during the weekly lunches and dinners, was a great benefit, which I am certain was influential in helping me get this second grant as well. I feel

privileged that my research is now providing me with a clear career perspective in science at the University of Copenhagen.

In terms of work output, my Wiko stay thus became all that I had hoped for, and a bit more. The 'bit more' includes all the interactions with the other Fellows. Coming from an institute (IST Austria) that has 'interdisciplinarity' written into its mission statement, I regarded myself as being familiar with explaining and discussing my work with scientists from other fields. However, I quickly became aware that this familiarity ended when the fields in question were no longer in the natural sciences, but rather the social sciences and humanities. While challenging, this new exposure was very gratifying, which was manifested particularly in the Tuesday Colloquia, which proved to be a string of engaging presentations. Not being part of a Focus Group, I much enjoyed the meetings with the College for Life Sciences (CfLS) and the Women in Science Teas (WIST), which gave a feeling of belongingness, which I might otherwise have missed.

Besides being a scholarly enrichment, my Wiko stay also turned out to be a cultural enrichment. I joined the German class on the day I arrived, which was the last day of the intensive course. Living in Austria for almost four years and growing up in Denmark close to the German border, I was not exactly a beginner. Still I never took the time (and effort) to become proficient, either. German class was rewarding not only in terms of improved conversation skills, but also as an excellent introduction to German culture and history. Thus, our teacher Eva von Kügelgen made sure that we were prepared to get the most of the historic event that took place on November 9, 2014: the celebration of the fall of the Berlin Wall 25 years ago. A great number of cultural projects were taking place in Berlin those days, the most spectacular one being the "Border of Lights", a chain of illuminated balloons marking the former Wall between East and West Berlin. Together with some of the Fellows, I went to see the balloons when they were released into the skies on the evening of November 9, thereby commemorating the peaceful revolution and fall of the Berlin Wall in 1989. The lighting installation was powerful and beautiful at the same time, and the atmosphere quite magical. I felt lucky to be in Berlin to experience this moment. Other cultural highlights included guided tours of the Grunewald and the Staatsbibliothek organized by the Wiko staff, a visit to the Bode Museum with Wiko Fellow Aden Kumler as a wonderful guide and lastly concerts by Wiko Fellows András Schiff und Michel Chion.

Thinking of my time at the Wiko brings back a myriad of good memories, and I feel truly fortunate to have had the chance to spend three months there. The break away from

everyday routines at my own institute was deeply productive, enriching and educational, and I am certain that my experiences there will shape my thoughts and directions in the future. All in all, thank you very much Wiko!