



JUST IN TIME, BUT NOT LONG ENOUGH
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Since 2013, Nancy Moran has been a faculty member at the University of Texas at Austin, where she is the Warren J. and Viola Mae Raymer Chaired Professor in Biology. She was previously a Professor at Yale University and, before that, at the University of Arizona. Although she lived outside of Texas most of her life, she grew up there and received her undergraduate degree at UT-Austin. She did her doctoral work at the University of Michigan, advised by William D. Hamilton and Richard Alexander, pioneers in the study of social behavior and evolution. Since 2004, she has been a Member of the US National Academy of Sciences and of the American Academy of Arts and Sciences and has received numerous awards, including the Kimura Award for lifetime contribution from the Society for Molecular Biology and Evolution and the International Prize for Biology from the Japan Society for the Promotion of Science. Moran studies the evolution of symbioses, using genomics-based approaches, and of insect systems, including aphids and honeybees. She has documented the deep evolutionary roots of symbiotic associations and their ubiquity among insects, and she developed some of the central experimental models for mutualistic symbiosis. One of her proudest contributions are the graduate students and postdoctoral fellows she has mentored. Altogether, about 35 former members of her research group now have their own laboratories where they teach and pursue research on insects, symbioses, and evolution. – Address: Department of Integrative Biology, University of Texas at Austin, Austin, TX 78712, USA. E-mail: nancy.moran@austin.utexas.edu.

Our taxi arrived just in time – for champagne and Thursday dinner. So, I had an immediate crash course in the cast of characters and the culture that was already in place at Wiko by the

start of April. I was a short-term Fellow, in residence for only two months near the end of the year. As a late arrival, and as someone who is not especially good at quickly learning names and faces, I had to make a serious effort. The immediate warm welcome helped, as did the ease with which we settled into a beautiful living and working space. We were immediately comfortable, thanks to the generosity of the Wiko staff and the Fellows and partners.

I had worried about leaving my lab and the graduate students and postdoctoral researchers and shirking the myriad bothersome duties that are part of being an empirical laboratory scientist: funding, hiring, accounts, safety regulations, equipment maintenance, grading, mentoring, scheduling rooms for meetings, letters of recommendation. How could all of this be managed without me?

Within hours of arriving, these anxieties flew out the window. Beautiful spring flowers were emerging, birds singing, and at Wiko, starting at that first dinner, the range of ideas and conversations was rerouting my thoughts and easing my mind. There was nothing to worry about.

In fact, the lack of lab life turned out to be liberating. Nicely set up with a large computer monitor and a view of the lake from my apartment office, I found time to think about which research projects truly are worthwhile and to read widely as I explored some new possibilities. My proposed project, on genome evolution in bacterial symbionts, needed no lab, as public data are abundant. The main need is for uninterrupted time in a calm place, preferably with a nice view: all of which Wiko afforded.

Over millions of years, genomes gain and lose genes and shape themselves in ways reflecting their history and their associations with other genomes. Whenever I have the time to delve into these kinds of data on my own, I am again in awe of the vastness of time and evolutionary history that is represented by strings of As, Ts, Gs, and Cs. Past associations with vanished symbionts and past acquisitions of new functional capabilities leave traces in genomes that are clearcut if one has the focus and time to take a look. And I did have that at Wiko; I only wish I could have prolonged my time there.

In my short time at Wiko, I didn't bring a project from start to finish, but I did manage to make some progress on a project on genome evolution in endosymbiotic bacteria and to get a new outlook on the main questions. This was of course facilitated by the array of casual conversations and directed discussions and by presentations by Fellows and guests. I took great pleasure in working alone all morning, knowing that I had several undisturbed hours and then could walk through a beautiful setting to a lovely lunch with stimulating and diverse conversations.

Of course, I wasn't totally freed from the minutia of the lab. But, fortunately, the combination of the shift in time zone and the typical daily schedules of graduate students meant that I only started receiving lab-related e-mails late in the day, starting around 15:00–16:00. So, the quiet of the mornings lingered past lunchtime.

We managed to see quite a lot of Berlin, and I gave talks at the Free University and also at Marburg. The problems and evils of humanity are impossible to ignore in Berlin and at Wiko. This made the kindness and the scholarship and the art all the more valued. At least there are some good things and good people, who care about what matters.

How time flies. My stay was way too short. But even in two months, a lot can happen. The swan couple hatched seven young on Hubertussee, and they grew and expanded their daily movements, with excursions to Koenigssee, passing through the canal just outside my office window. By the day we left, only two remained. (And even those perished, according to later Wiko e-mail reports). The magnolia in the Villa Walther courtyard reached its fullest white bloom just after we arrived and had dropped all flowers and shifted to leafy green by departure time. And during this time, I germinated quite a few new ideas and launched some efforts to pursue them.

Meanwhile, back in my Texas lab, the young scientists had pulled themselves up by their bootstraps. They organized, scheduling peer-mentored lab meetings, devising a new format for the journal club, and initiating an informal trouble-shooting forum. Very nice! It seems that they don't need me so much, at least not so constantly, after all.

