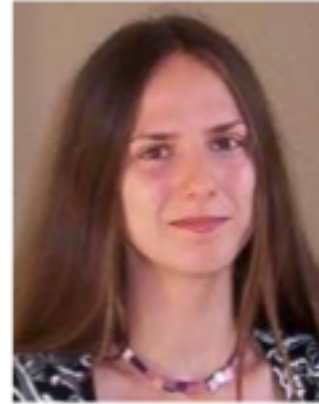


Interview Freya Harrison

Introduction:

Freya is a post-doctoral research fellow in Steve Diggle's group in the School of Life Sciences and studies the social behaviour of bacteria.



1. Hello Freya. Thank you for your time. Firstly, it would be nice if you could give the readers a short overview about your career path.

Freya: I did my PhD in Oxford under the supervision of the evolutionary biologist Angus Buckling in which I studied the evolution of cooperation. I used *Pseudomonas aeruginosa* as a model system in evolutionary experiments and for mathematical predictions to identify when cooperative behaviour should evolve.

After graduating from Oxford, I went as a research fellow to the Biodiversity Lab in Bath, where I followed on studying animal behaviour. However, in Bath I concentrated on animal and human cooperative behaviour experiments and using meta-analyses.

Following my post-doc in Bath I got a Junior Research Fellowship at the University of Oxford and carried out my own studies about the evolution and cooperative behaviour of bacteria. After finishing this fellowship I came to Nottingham.

2. You are in great demand at the moment because of your medieval project. Could you tell me a bit about it?

Freya: My medieval project could only have happened in Nottingham since the University has one of the best research departments for Anglo-Saxon and Viking history and my hobby is historical re-enactment of Anglo-Saxon and Viking living history. I asked the School of English to join their reading group for Old English and met Christina Lee whose expertise is in Anglo-Saxon and Viking history and she is also interested in history of infection and diseases of those times.

Together we got a small UNICAS grant to study and reconstruct treatment of bacterial infection in medieval times by using recipes we found in the Old English literature. Steve Diggle was also interested in it and so I did some experiments and found out that it actually worked. The paper is in review at the moment so fingers crossed!

3. That sounds very interesting. I have heard that you recently got interviewed about this work?

Freya: Yes, all of this went viral. Almost everybody was interested in what we are doing, for example Sky, BBC, New Scientist and even Playboy, which rather surprisingly has a science section.

4. Do you have other projects you are carrying out at the moment?

Freya: Yes, another main project I am working on is microbial ecology in chronic infections. In this I am looking at *Pseudomonas aeruginosa*, which is an opportunistic pathogen that often infects immunocompromised people and is the major cause of lung infections and respiratory failure in patients with cystic fibrosis. For my investigations of how *P. aeruginosa* evolves during chronic lung infection, I am using lung tissue models which mimic the natural host environment to look at the phenotypic and genotypic evolution of bacterial communication systems (quorum sensing systems).

5. Thank you for all these information. Now a few more general questions about your work place. Do you have ideas about how we could improve CBS?

Freya: Maybe a coffee/tea time for all researchers once a week, so that everyone can chat and discuss their work or new ideas. We always had those coffee times in Bath and Oxford and I found them really useful, because it helped to create a community feeling.

6. What do you like in CBS?

Freya: The support of senior staff; I really appreciate the amount of time and effort they put into their teaching of students, post-docs and staff next to their own work.

7. What is your favourite equipment?

Freya: "R"- the statistical software. It is open source and I am happy to help, if there is anyone having trouble with it. ([Information and free R-download](#))

Closing remarks:

If you like to know more about Freya, she has a very interesting website, which tells you more about her than I could capture in this short interview:

[Freya's website](#)

[Freya's Twitter](#)

Interviewed by Anja Wiechmann