Master's Project: Localisation of killer whale calls

Dear Dr. Jörg Rychen, Dr. Kaja Wierucka, Joseph Mine, and Prof. Dr. Richard Hahnloser,

I am writing to express my keen interest in the master's project on localisation of killer whale calls that you have advertised. As a master's student with a passion for animal communication, particularly in highly social and intelligent animals like cetaceans, this project is an excellent fit for my academic background and research interests.

Through my current internship, I have gained invaluable experience in literature research and have been actively involved in an upcoming publication of the Cognitive Science Department of the University of Vienna. Furthermore, I was responsible for digitalising over 100 years' worth of scientific records and helped create an updated system for the organisation of phylogenetic data in the Myriapoda collection during my volunteer work at the Natural History Museum of Vienna. These skills and hands-on experiences have honed my research skills, taught me the importance of attention to detail and equipped me to make a meaningful contribution to this project.

In addition to my research skills, I have some basic programming competence and am eager to develop my knowledge in this area under the guidance of your experienced interdisciplinary team. My academic background in cognitive and behavioural science, strong interest in technology, as well as my past research experience, make me a well-suited candidate for this project. I am particularly drawn to this project's technological aspects and interdisciplinary nature, where I would be involved in developing signal processing methods for analysing the communication of wild killer whales.

The challenge of separating individual calls from within a group is fascinating, and I believe that your innovative approach of using nested short and long base-line hydrophone arrays and signal processing methods has the potential to make a significant contribution to future research. I am excited about the opportunity to develop my bioacoustics skills and acquire expertise in audio signal processing, which I believe will be invaluable for my future career in science.

I am available to start immediately, and I am committed to dedicating six months of full-time work to the project. I am thrilled at the prospect of contributing to a scientific publication and would be honoured to have the opportunity to work with your team.

Thank you for considering my application. Please find attached my CV and transcripts. I look forward to hearing from you soon.

Sincerely,

Julia Peham

Julia Peham BSc.