

Post-doctoral Research Fellowship

A postdoctoral research position is available immediately at Stellenbosch University (duration 3 years) to work on a collaborative project examining the use of infrasound for navigation in seabirds.

This specific postdoctoral project will focus on exploring the mechanisms that may underlie seabird infrasound detection. The project will use advanced 3D imaging techniques to visualize and measure sensory organs in a variety of seabird species. The data will be examined within a phylogenetic framework and integrated with spatial modelling and geophysical components of a larger international collaborative project. Aural structural data will also be used to model theoretical frequency sensitivity of infrasound detection by seabird sensory organs.

The project and postdoctoral position is funded by a Human Frontier Science Program grant and brings together the fields of geophysics (hosted by Jelle Assink, Royal Netherlands Meteorological Institute, The Netherlands), behavioural ecology (Samantha Patrick, University of Liverpool, UK), physiology (Susana Clusella-Trullas, Stellenbosch University, South Africa) and spatial modeling (Mathieu Basille, University of Florida, USA). The postdoctoral candidate will be part of a young, dynamic team of cross-disciplinary researchers that will work closely together and combine i) the infrasonic wavefield in the atmosphere and the ocean, ii) the structural mechanisms by which seabirds can detect infrasound signals and iii) the bird's behavioural responses in field conditions, to unravel the role of infrasound in seabird navigation.

The position will require a PhD in biological sciences, preferably comparative anatomy or physiology, or a related field (e.g. physiological ecology). The candidate should have experience and creative insights into microscopy methods (e.g. TEM/SEM, fluorescence microscopy, 3D imaging and analysis), a strong background in advanced statistics (e.g. multivariate analyses; geometric morphometrics) and a proven track-record for publishing research in high quality peer-reviewed literature. Desirable criteria include knowledge of and advanced programming in the R statistical environment.

The applicant will be based in the CL•I•M•E laboratory of Susana Clusella-Trullas (<http://clusellatrullas.blogspot.co.za/>), Department of Botany and Zoology at Stellenbosch University, South Africa, but must be able to work as part of a close collaborative team and be willing to spend short periods of time at all four institutions involved. The post is full time and fixed term for 36 months and candidates would start on 1st October 2017.

To apply

Applications should consist of an academic CV, cover letter and brief description (300 words) of three key published papers that show skills relevant to this post and particularly novel results. Applications and further enquiries should be directed to S. Clusella-Trullas (sct333@sun.ac.za).

Review of applications begins August 1st 2017 and will close as soon as a suitable candidate has been found.

Stellenbosch University is a fully accredited classic university with 10 faculties: Arts, Economic and Management Sciences, Education, Science, Agricultural and Forestry Sciences, Health Sciences, Military Science, Law, Theology and Engineering. In total, 30 854 students were enrolled in 2016. Of these, 10 154 were enrolled as post-graduate students representing 33% of all students. The number of international students currently enrolled at the University has increased to over 4 000 students from more than 117 countries. The size of the permanently employed personnel corps in 2016 was 3 212 comprising of 1000 academic personnel and 2 212 non-academic personnel.

The University is recognised as one of the top research universities in South Africa with a long history of pure and applied research across a large range of disciplines through partnering with industry and government; locally and internationally.

Stellenbosch University is listed on three reputable international ranking lists (QS World University Ranking, Times Higher Education World University Ranking and the Leiden Ranking), has the highest number of total outputs (publications and postgraduate students) per academic staff member of all South African universities; has 38 Research Chairs and seven national Centres of Excellence supported by the South African Department of Science and Technology. Researchers at SU are involved in more than 80 European Union programme projects, 60 international bilateral projects with researchers in many different countries in Europe, Scandinavia, North and South America, Africa, Asia and Australasia, and more than 2500 active research contracts.

More information on the University is readily available from the SU Annual report (<http://www.sun.ac.za/annualreport/>).