

# THE PERCY FITZPATRICK INSTITUTE OF AFRICAN ORNITHOLOGY



**Study opportunity: PhD research at the FitzPatrick Institute of African Ornithology, Department of Biological Sciences, University of Cape Town**



In collaboration with



In  
partnership  
with



## **PhD student: Understanding the future of South Africa's National bird, the Blue Crane**

In a collaboration between the African Crane Conservation Programme (ACCP) (a partnership between the Endangered Wildlife Trust (EWT) and the International Crane Foundation (ICF)) and the University of Cape Town's FitzPatrick Institute of African Ornithology, we are recruiting a full time PhD student for a project aimed at understanding and unpacking the future of South Africa's National bird and near endemic, the Blue Crane. This PhD is supported by the Leiden Conservation Graduate Fellowship and the student will be registered with the University of Cape Town and employed by the EWT.

This exciting project provides the opportunity for the student to be part of a dynamic team of conservationists from across sub-Saharan Africa. The student will both complete a PhD and also develop work-based skills.

### **THE PROJECT**

Our research project will build on two Master's projects on Blue Cranes conducted through the University of Cape Town's FitzPatrick Institute. The first study (by Julia van Velden) assessed the viability of the Western Cape population of Blue Cranes through analysis of crane survival, using over 600 colour ringing and resighting records combined with rating of farmer tolerances towards Blue Cranes in the agricultural landscape. The results of the study suggest two areas of concern: firstly, farmers in the Swartland are significantly less tolerant of Blue Cranes than farmers in the Overberg, with over 75% of farmers interviewed perceiving Blue Cranes as the bird species that causes the most or second most crop damage. Secondly, the survival estimates for Blue Crane adults are significantly lower than any other estimate in the country (Karoo and Eastern Grasslands). The low estimates may be partly attributed to ring loss, but it is still likely that lower adult survival estimates accurately reflect the population status because of significant threats to survival in the Western Cape.

The second master's project, recently completed by student Sydney Davis, describes the landscape use and movement of Blue Cranes in the Overberg based on the tracking of 15 Blue Cranes fitted with GPS-GSM trackers. This project focused on identifying and describing Blue Crane roost sites, documenting seasonal movements of breeding and non-breeding Blue Cranes, and describing current land-use patterns and home ranges of breeding Blue Cranes. Data and results from these two projects will be available for use within this PhD.

We propose to build on these research projects through a three-year PhD study that will evaluate the status and future security of Blue Cranes in South Africa. The study and work will focus on the Overberg and Swartland regions of the Western Cape, home to more than 50% of the world's population of Blue Cranes, in order to determine the overall long-term viability of Blue Cranes in the Western Cape. We will address the following research questions:

1. How safe are Blue Cranes in the Swartland region of the Western Cape?
2. How are Blue Cranes in the Swartland similar or dissimilar to those of the Overberg in their movement and landscape use and how will that influence conservation action?
3. How will the predicted impacts of climate change and other socio-economic drivers impact on the Blue Crane population in the Western Cape? How resilient is the landscape and crane population to the impacts of climate change?
4. What impacts will increased wind energy development and associated power line infrastructure have on the local population? What is the threshold at which recruitment can no longer compensate for increased anthropogenic mortality?
5. What is the population viability of Blue Cranes in the Western Cape, and subsequently South Africa?
6. Additional questions could include comparisons with the Karoo population (the largest proportion of the population in natural habitat).

## **CONSERVATION IMPACT**

- Our study will result in the most detailed and complete understanding of the viability of Blue Cranes in Western Cape with inference to the viability of the total population.
- Our study will arm us with data to support us providing objective input into power line and wind farm development applications; this will influence decisions about whether such developments occur and the conditions under which future projects can go ahead.
- We will gain an understanding of how the future impacts of climate change on the agricultural landscape of the Western Cape will affect Blue Cranes; this will provide the foundation for the development of a conservation strategy for Blue Cranes in South Africa.
- Our work will encourage and promote increased awareness of the Blue Crane as South Africa's National Bird.
- We will contribute to an improved future for Blue Cranes in South Africa.

## **MAIN RESPONSIBILITIES**

- Implementation of the PhD outlined above.
- Disseminate research by publishing in peer-reviewed journals, producing reports, presenting at national conferences, and communicating findings within conservation communities and the Overberg / Swartland community.
- Identify and build relationships with landowners, land users and government and corporate stakeholders important to the conservation of Blue Cranes.
- Document, provide input into and develop mitigation measures for threats to Blue Cranes in the Overberg / Swartland.

- Represent the ICF/EWT Partnership at meetings and workshops relevant to Blue Crane conservation in the Overberg / Swartland, or nationally.
- Collaborate with the ACCP team across Africa and ensure effective transfer of lessons learned.

### **REQUIRED QUALIFICATIONS / SKILLS**

- An MSc in biological sciences or associated field, with a commitment to complete a PhD.
- Would need to be eligible for registering for a PhD with UCT by January 2019.
- Excellent written and oral communication skills with a proven publication record in peer-reviewed journals and the ability to write technical reports.
- Strong verbal communication skills, including speaking clearly and persuasively to individuals and groups; listening effectively; and responding effectively to questions from conservation colleagues, farmers, corporates, government officials, the media, and the general public.
- Experience working with landowners and in multisector landscapes would be an advantage.
- Excellent English is required, and ability to converse in Afrikaans would be an advantage.

### **LOCATION**

The project is based within the Overberg and Swartland region of the Western Cape.

### **START DATE**

Immediate.

### **APPLICATION PROCEDURE**

The EWT is an equal opportunity employer. Applicants are requested to submit a CV (including your academic record and names and contact details of two referees) and a short motivation letter to Emma Chisare on [emmac@ewt.org.za](mailto:emmac@ewt.org.za) or mail to Private Bag X11, Modderfontein, 1645 or fax to +27 (0) 86 636 5823. Applicants who are not contacted within 10 days of the closing date must please assume that their applications were not successful. The EWT reserves the right not to make an appointment. All applications will be treated in the strictest confidence.

UCT is committed to the pursuit of excellence, diversity and redress. Students granted a scholarship to study at UCT are required to comply with the UCT approved policies, procedures and practices for the postgraduate sector. UCT reserves the right to disqualify ineligible, incomplete and/or inappropriate applications, and reserves the right to change the conditions of award or to make no awards at all.

### **CLOSING DATE FOR APPLICATIONS**

30 April 2018