

## Section 1: Job Description

<b>Job Title:</b> Research Fellow in Crop Plant Modelling and Food Security	<b>Post No:</b> N/A
<b>Band:</b> Band D	<b>Job family:</b> Science and Science Information
<b>Directorate:</b> Science	<b>Section/Dept:</b> Natural Capital & Plant Health (NCPH)
<b>No. of Direct Reports:</b> 0	<b>No. of Indirect Reports:</b> 0
<b>Reports to (Position):</b> 1) Head of Natural Capital & Plant Health (NCPH) 2) Director of Science	

### Job Purpose:

*Short statement outlining the overall role, why it exists and what it contributes to Kew.*

To deliver RBG Kew's mission by: Being an active researcher within NCPH and delivering outputs needed by the Food Security Impacts of industrial Crop Expansion in Sub-Saharan Africa project, funded by the Belmont Forum.

### Job Context:

*Provide a short description of how the post fits into the wider organisation and the operational context.*

Reporting to the Director of Science and the Head of NCPH, the post holder is a member of the Plant Resources research team with responsibility for carrying out and publishing research applying modelling approaches to crops, crop wild relatives, crop pests, and other resource-providing plants relevant to both the needs of the Food security impacts of industrial crop expansion in Sub-Saharan Africa project and the overarching themes of NCPH and Kew's science strategy.

The post holder will demonstrate expertise in statistically and mechanistically modelling species distributions, with a special focus on crop modelling (e.g. *EcoCrop* model and similar approaches). This might involve modifying modelling algorithms and/or employing datasets of non-climate parameters such as plant traits, crops' genetic composition, or land use. Further, modelling efforts will seek not only to understand and forecast present and future suitability of crops/crop wild relatives/pests, but also their performance and productivity, and, if possible, interactions between them and other processes. Please refrain from applying if you do not have a strong mathematical and modelling expertise in the above-mentioned field.

The post holder will also seek to develop further funding streams and providing guidance to less experienced members of the research group, including technical staff and students, especially on modelling approaches to crop distribution and performance. He/she will make contributions to the overall running of the Science Directorate commensurate with the grade of the post.

This is a fixed term position until 31<sup>st</sup> January 2018.

### Accountabilities:

1.	Develop and conduct research (including project and budget management), exploiting the full range of scientific techniques and collections available at Kew. Work collaboratively within Plant Resources research team and across Kew science and act as a source of information and advice to colleagues on species distribution modelling and related research methods.	45%
----	---	-----

## Job Profile

2.	Prepare and publish scientific outputs, including papers, books, reports and electronic products. Present research papers and posters at relevant meetings.	25%
3.	Develop and implement income generation plans, in consultation with senior researchers culminating in applications to major funding bodies (e.g. Darwin Initiative, RCUK, EU H2020, etc.)	10%
4.	Contribute to collective activities of Science Directorate and research theme or department, for example, consultancy, teaching, public engagement, policy advice, representing Kew science internally and externally.	20%

---

### Management of Resources

**Financial Responsibilities:** All staff are responsible for management of their own time and resources.

1.	Management of own research income
2.	

### Management of People

1.	May manage students and supervise visitors
2.	

---

**Position within the Team** – *insert or attach a simple organogram of the position including line manager, work colleagues and direct reports*

---

### Job Description Agreed

Job Holder ..... Date .....

Line Manager (F7) or above ..... Date .....

(Signatures)

## Section 2: Person Specification

### Education and Experience

<b>Essential</b>
PhD/DPhil in a relevant specialist subject
Ample specialist knowledge in the relevant discipline to work within established research programmes and deliver research outcomes relevant to the position and task
Experience of contributing to publications/presentations (minimum of two peer-reviewed papers as lead author, at least one a first-named author paper in a journal of CIF >2)
Excellent communication skills, including the ability to write for publication, present research proposals and results, and represent the research group at meetings
Experience of independently managing a discrete area of research
Experience of contributing to funding applications
A track record in using Species Distribution Modelling (both statistically and mechanistically) in biodiversity science, especially with crop plants
<b>Desirable</b>
Supervision of PhD student(s)
University lecturing

### Job Specific Competencies – *skills and abilities specific to the job*

<b>Essential</b>
Ability to develop ideas for new research projects and income generation
Ability to manage own scientific research and associated activities
<b>Desirable</b>
Ability to manage small teams (e.g. students)

**Kew Competency Framework:** *The Framework identifies behaviours required for roles at different levels. Which are the key competencies for this job? Select up to four essential competencies*

Competency	Essential (✓)
1. Leading and Influencing	
2. Developing High Performance	✓
3. Collaboration	✓
4. Thinking with Vision	✓
5. Making Effective Decisions	
6. Delivering Value for money	
7. Making things happen	✓
8. Delivering in Partnership	
9. Changing with Pace	

