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| **JOB DESCRIPTION** |
| **SPECIFIC JOB TITLE** | Head of Environmental Trends and Rothamsted Insect Survey (RIS)  |
| **GENERIC ROLE TITLE** | PRINCIPAL RESEARCH SCIENTIST |
| **LEVEL/GRADE** | F-G |
| **JOB FAMILY** | SCIENCE |
| **HOURS** | Full-time (Flexible working will be considered) |
| **REPORTS TO** | Strategic Area Director |
| **DEPARTMENT** | Protecting Crops and Environment |
| **LOCATION** | Harpenden / North Wyke |
| **OVERVIEW OF ROLE/JOB PURPOSE** |
| We have a rare and exciting leadership opportunity for an outstanding individual to become the head of the Rothamsted Insect Survey (RIS) and lead a science programme associated with this role with impacts for policy and industry. The post may appeal to candidates from either the academic or commercial sectors.The RIS is responsible for generating, interpreting and publicising data for the world’s longest running standardised invertebrate time-series and archive. Its work is fundamental to informing crop pest management and biodiversity research which in turn Influences public policy and climate change science. This involves extensive engagement with a diverse set of stakeholders and other interested parties. The RIS is sponsored by the Biotechnology and Biological Science Research Council (BBSRC) as a National Bioscience Research Infrastructure (NBRI). More detailed information can be found in this [YouTube video](https://www.youtube.com/watch?v=iCm7fgIG_1I) and the website [insectsurvey.com](https://insectsurvey.com/about).The job holder will lead a team who are dedicated to working on the nationwide Rothamsted suction-trap network, which is used primarily to sample and monitor aphids and other important insects of relevance to UK agriculture, as well as the Rothamsted light-trap network, which is used to collect data on moth biodiversity. The post holder is expected to build further capability from these excellent and unique resources through their own activities as well as through providing the leadership needed to deliver to strategic RIS and institute goals. They will be expected to embrace innovative approaches in shaping new science with impactful outcomes of relevance to stakeholders and to collaborate with a host of other researchers both within the institute and externally. The job holder should have prior experience of working in a senior role in any relevant discipline and be able to demonstrate a keen interest in applying the analysis and understanding of long-term data sets to challenges in crop protection (including insect pests and beneficials), biodiversity conservation and the impacts of climate and environmental change on biological populations. They will have an exciting vision for developing the underpinning science and be able to exhibit demonstrable skills in stakeholder engagement and communication, alongside foresight and judgement in delivering a research programme of international standing. The role will require insight of policy, industry drivers and decision-making, along with the ability to communicate and influence these domains. The job holder will also be skilled in team working, with experience of leading large projects, demonstrating the ability to oversee lab, field and desk-based deliverables on time and to budget. A track record of grant funding and revenue generation will be essential e.g. from government (UKRI, Defra, Innovate FCDO), industry or foundations.Applicants who feel that they can fully meet all the job specific duties for the role should apply as a Principal Research Scientist (Band G). Candidates with less leadership experience are encouraged to apply to be considered at the Senior Research Scientist (Band F) level. Please apply with a covering letter setting out your suitability for the role and your vision for the position. We reserve the right to close this vacancy early should we receive sufficient applications for the role.The role holder is expected to carry out the duties listed below and any other duties reasonably required bythe line manager or the Institute, commensurate with the grade and level of responsibility for this post. |
| **MAIN DUTIES OF ROLE** |
| **Generic Outputs** | **Weighting** | **Description of Outputs**  | **Description of Job Specific Duties** |
| **UNDERTAKING THE RESEARCH** | 10-15%  | Determine and lead the direction of the RIS. Contribute to the development of new research projects  | * Utilise the expertise and data of the RIS to solve current problems and answer novel research questions
* Initiate new and original solutions to problems that the RIS faces, e.g. leading on how new and emerging technologies such as machine learning can improve how the RIS operates.
* Shape the direction of current RIS projects and lead on the development of new initiatives that align with the future of Rothamsted and the RIS
* Observe and work in accordance with RRes Research Integrity and Research Ethics policies
* Remain active and up to date with current research and use these insights to develop long-term strategic goals

In addition, at Band G:* Develop proposals for research projects in related areas which will make a significant impact on agricultural policy, environmental policy, industry, or research
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| **ANALYSIS, PRESENTATION AND PUBLICATION** | 10-20% | Creating publications of research papers and international conference presentations. | * Lead the process of analysing and interpreting RIS data and information
* Publish research results from the trapping networks (preferably as either first or corresponding author) in leading peer-reviewed journals and/or books/web-based media which lead to the establishment of a reputation in one or more disciplines appropriate for the RIS
* Provide leadership oversight on the management of RIS data requests to improve collaboration opportunities and evidence of impact
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| **FUNDING AND FINANCIAL MANAGEMENT**  |  15-20% | Securing repeat funding for the RIS as well as developing successful proposals and bids to attract additional novel funding from other diverse national and international sources | * Secure income from governmental (UKRI, Defra, Innovate FCDO), industrial, or private/foundation sources to fund the core tasks of the RIS as well as coordinate the reporting of outcomes
* Manage the financial budgets of the RIS, Forecast and accurately manage costings of projects and studentships.
* Develop collaborations from within as well as outside of the Institute which translate into generating research income.
* Lead major funding bids which develop and sustain research support for the RIS

 In addition, at band G:* Act as major contributor to multiple grants, ideally winning a number of substantive grants per year
* Support other scientists at Rothamsted in the development of grant proposals and other new initiatives and play a proactive role in seeking new areas of strategic funding
* Influence funding policy within the sector and professional associations/bodies
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| **WORKING WITH OTHERS**  | 15% | Collaborating with other research groups (internal or external), institutions and stakeholders both nationally and internationally. | * Leading collaborations with other research groups within the institute
* Make a significant impact on internal operations of the Institute, participating on internal panels and strategy review committees and developing internal networks
* Lead the development and implementation of scientific collaboration and strategic partnerships with public and private research partners, nationally and internationally e.g. with the BBRO, AHDB, ADAS, PGRO and others
* Play an active role in review of papers for international scientific journals
* Be an active member of scientific societies or other national/international initiatives, assuming leadership roles where appropriate
* In addition, at band G:
* Provide a high level of expert advice to Institute management
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| **LEADERSHIP AND MANAGEMENT** | 15-25% | Leading the RIS team. Coordinating the work of the RIS technical team proactively managing more junior employees. | * Provide leadership to all the RIS team members, resolving any disagreements and taking responsibility for the team’s overall success
* Lead the organising and deployment of resources within the RIS group, this includes playing a leading role in the hiring of new staff members
* Ensure that all legislative and Institute requirements are met for the RIS and ensure that a safe working environment is always maintained
* Act as supervisor (where applicable) to PhD students.
* Actively seek feedback on own supervisory skills and take action to adjust behaviour/ approach where necessary
* Recognise skills and expertise in others and effectively delegate tasks whilst monitoring their progress

In addition, at band G:* Lead and direct the programme of research for the RIS as principal investigator on multiple grants.
* Act as a mentor to less experienced colleagues and help mentees and other people to see opportunities and take up new challenges
* Implement new and original solutions to overcome the challenges of managing large and long-term projects and resources
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| **KNOWLEDGE EXCHANGE, COMMERCIAL-ISATION AND OUTREACH** | 15% | Interacting with funders, partners, end-users and other stakeholder of the RIS. As well as public engagement and commercialisation activities for the institute. | * Present research to end-users at outreach events such as Cereals, AHDB workshops etc.
* Assess the impact of the RIS on agriculture, climate science, biodiversity and policy, and develop strategies to achieve greater impact across these sectors
* Represent the RIS and contribute nationally and internationally at conferences, workshops and events as well as developing external collaborations to ensure the RIS data, archive and expertise are used to their full potential to drive impact, generate income, increase KE and enhance the relevance of the RIS
* Engage with sectors that are outside of the field of research, such as media, education, and government, to inform the wider public and influence key decision-makers

In addition, at band G:* Regularly give plenary lectures, speak at international meetings and organise national or international workshops
* Lead and deliver research outcomes in the form of policies, commercialisation of intellectual property, new alliances with private organisations, outreach activities or other measures for KEC impact
* Make a significant contribution to the planning and/or conduct of public engagement activities, including public dialogues, media interactions, open days, school education programmes, online education products and training activities
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| **CONTINUING PROFESSIONAL DEVELOPMENT** | 5% | Leading, reviewing and refining own and others’ learning and development activities to ensure they impact positively on work practices or service delivery outcomes | * Support a climate where everyone is encouraged to fulfil their true potential, and champion effective performance management and development throughout the RIS and the rest of the Institute
* Identify development and capability needs within the role in the RIS as well as the role of other team members and implements appropriate solutions
* In addition, at band G:
* Is involved with developing strategies that systematically develop the capability of the organisation
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| **Competencies** |  | All stage 5  | * See Appendix
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| **PERSON SPECIFICATION AND SHORTLISTING CRITERIA\*** |
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| **JOB FAMILY** | SCIENCE |
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| **REPORTS TO** | Strategic Area Science Director |
| **DEPARTMENT** | Protecting Crops & Environment |
| **LOCATION** | Harpenden / North Wyke |
| **EDUCATION/QUALIFICATIONS** | Essential | Desirable | How Tested?\*\* |
| 1. | PhD and at least 10 years of relevant scientific and managerial experience | x |  | AF IV |
| 2. |  |  |  |  |
| 3. |  |  |  |  |
| **EXPERIENCE/KNOWLEDGE/SKILLS** | Essential | Desirable | How Tested?\*\* |
| 1. | Distinguished publication record through refereed journal articles, monographs and conference publications | x |  | AF IV |
| 2. | Leading authority in a relevant subject, with a considerable national and international reputation |  | x | AF IV |
| 3. | Thorough understanding of Institute management systems and the wider research environment |  | x | IF IV |
| 4. | Experience of managing and controlling substantial budget/resources/ funding and an understanding of financial management procedures | x |  | IF IV |
| 5. | A good personal track record of research income-generation from a range of sources and a willingness to work with colleagues to enhance their effectiveness in obtaining research income | x |  | IF IV |
| 6. | Proven skills in leading, motivating, developing and managing the performance of others, ensuring the effective overall performance and development of the research group | x |  | IF IV |
| 7. | Evidence of developing new techniques, standards and/or methods, and acting as a role model for best practice | x |  | IF IV |
| 8. | Awareness of current and future priorities of the RIS |  | x | IF IV |
| **BEHAVIOURS/COMPETENCIES** | How Tested?\*\* |
| 1. | **Drive for Quality**: Takes calculated risks to achieve goals | IV |
| 2. | **Strategic Thinking**: Shapes organisational vision in context of wider external environment and creates new paradigms | IV |
| 3. | **Creativity and Innovation**: Leads, enables and shapes change | IV |
| 4. | **Developing Self and Others**: Creates environment that helps self and others to develop, and anticipates future learning beyond current job requirements or needs | IV |
| 5. | **Professional Conduct**: Nurtures a climate of mutual respect | IV |
| 6. | **Productive Relationships**: Proactively builds team spirit | IV |
| 7. | **Effective Communication**: Actively develops and protects the reputation of the Institute | IV |
| **GENUINE OCCUPATIONAL REQUIREMENTS** | Essential | Desirable | How Tested?\*\* |
| 1. |  |  |  |  |
| 2. |  |  |  |  |