EUROPEAN COMMISSION

JOINT RESEARCH CENTRE

2020-IPR-A5-FGIV-015648	**FGIV - SCIENTIFIC/TECHNICAL SUPPORT OFFICER - EXPLORATORY RESEARCH PROJECT - LOCALIZING WILDFLOWER-POLLINATOR INTERACTIONS IN RURAL LANDSCAPES WITH CITIZEN SCIENCE AND DEEP LEARNING, FLORA FAUNA GREEN RURAL CORRIDOR CONNECT (FFGRCC)**

Position for: **FG IV - Project Officer - Scientific/Technical Support Officer**	As the science and knowledge service of the Commission, the mission of DG Joint Research Centre is to support EU policies with independent evidence throughout the whole policy cycle. The JRC is located in 5 Member States (Belgium, Germany, Italy, the Netherlands and Spain). Further information is available at http://ec.europa.eu/jrc/ The JRC offers a vacancy for a Contract Agent within the Exploratory Research Project FFGRCC (Localizing wildflower-pollinator interactions in rural landscapes with citizen science and deep learning; Flora Fauna Green Rural Corridor Connect). The JRC Exploratory Research Programme (ER) is a strategic initiative characterised by ideas that might lead to novel results to qualitatively enrich current JRC scientific work. The vacancy is within the Directorate for Sustainable Resources. The directorate supports the European Commission with independent, technical and scientific evidence in the areas of the environment including biodiversity, environmental quality and sustainable use of natural resources. The operational scientific research will take place in the unit Food Security. The ER Project FFGRCC will localize and model wildflower-pollinator interactions in rural landscapes with citizen science and deep learning. Using Pl@ntNet crowdsourced wildflower-species occurrence data along with LUCAS photos and data, spatially refined probability of occurrence maps of European wild flower species will be created. Deep learning algorithms will be used 1) to extract habit information from LUCAS landscape pictures and 2) to model species distributions. The flower distributions will be combined with occurrence maps of pollinator species (e.g. GBIF) and climatic variables (ECMWF) to predict wildflower-pollinator co-distributions across Europe. Finally, we will evaluate if and how these spatial co-distributions of wildflower and pollinator species are associated with semi-natural ecosystems and landscape features in the context of the Common Agricultural Policy (CAP). The selected candidate will be in charge of carrying out all

	aspects of the FFGRCC project, this includes: • Collect, analyse and geospatially process massive amounts of plant species occurrence data and images; • Design, implement and test deep learning algorithms to extract habit information from landscape pictures and applied to species distribution modelling; • Dissemination/publication of results. Qualifications: Essential: • A doctoral diploma in Computational Ecology, Applied Computer Science, Agricultural Engineering, or related field, alternatively completed university studies of at least three years attested by a diploma and at least five years professional experience in a field relevant to the position; • Extensive knowledge/experience in advanced machine learning, computer vision, geospatial ecological analysis, statistics (R) and programming (e.g. Python); • Broad knowledge in the area of biodiversity and agriculture. Advantage: • Knowledge of cloud computing, citizen science and crowdsourcing; • Solid record of research activities relevant for the post including publications in international peer-reviewed journals • Ability to work in a team and in a multi-cultural environment; • Open-source project experience that demonstrates programming, mathematical and machine learning abilities and interest. The candidate is expected to be creative and work independently. Good oral and written communication skills in English (B2) are essential. Knowledge of other languages is an advantage. The Joint Research Centre is an equal opportunity employer and is committed to increasing the diversity of its staff. It welcomes applications from women and minority groups.
Directorate **Unit** **Project**	Sustainable Resources Food Security The Scientific Development Unit of the Directorate for Strategy and Work Programme Coordination is in charge of the overall JRC Exploratory Research Programme. The operational scientific research will take place in the Food Security Unit in Ispra (Italy). Exploratory Research Project: Localizing and modelling wildflower-pollinator interactions in rural landscapes with citizen science and

	deep learning; Flora Fauna Green Rural Corridor Connect (FFGRCC) Further information is available at: https://ec.europa.eu/jrc/en/science-area/agriculture-and-food-security
Indicative Duration	24 months
JRC Site **Country**	Ispra Italy
Rules and eligibility	The candidate must be on a valid EPSO reserve list for Function Group IV contract staff. If you are not in any valid EPSO reserve list for Function Group IV contract staff, you can still apply by following these steps. You express your interest by applying to the CAST Permanent or to the permanent JRC Call for researchers. 1. CAST Permanent: open-ended selection procedure to create a pool of candidates from which the institutions, bodies, offices and agencies of the European Union (EU) can recruit contract agents. https://epso.europa.eu/documents/2240_en 2. JRC Call COM/1/2015/GFIV – Research: open-ended selection procedure to create a pool of candidates from which mainly the JRC can recruit contract agents FGIV as researchers. Details available at the link below: https://ec.europa.eu/jrc/en/working-with-us/jobs/vacancies/function-group-IV-researchers Only then you can apply for this specific position, through http://recruitment.jrc.ec.europa.eu/?type=AX **Auxiliary contract staff:** https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/contract-staff-members Article 3b of the Conditions of Employment of Other Servants of the European Union applies: the actual period of employment within the Commission under this type of contract, including any period under renewal, shall not exceed 6 years. *Please note that in case a high number of applications is received only shortlisted candidates will be contacted.*