EUROPEAN COMMISSION
DIRECTORATE-GENERAL
JOINT RESEARCH CENTRE

2018-IPR-A5-FGIV-9888	FG IV - Scientific/Technical Project Officer - Exploratory Research: Mapping habitat suitability of honey bee (Apis Mellifera)

Position for: **FG IV – Scientific/Technical Project 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: https://ec.europa.eu/jrc/. The Exploratory Research Programme (ER) is a strategic initiative characterised by ideas that may lead to novel results, which are going to qualitatively enrich the current scientific work at the JRC. The JRC is offering a position for a contract agent in the context of the exploratory research project MAHONEY. This project will test a novel and innovative approach to help detect fraud in honey in the European market. It will combine high-resolution mapping of honeybee habitat suitability with advanced chemical analysis of honey, to identify regions and areas of production which are potentially more vulnerable to honey fraud. The main activity of the candidate concerns mapping the habitat suitability of honey bee (*Apis mellifera*) based on high resolution environmental datasets. Habitat suitability of honey bees is depending on the availability of food and water within a certain distance from the bee hive and suitable weather and climate conditions. The work will entail the collection of high resolution datasets which simulate habitat conditions for honey bees (such as products from remote sensing and earth observation like photos, land cover and land use maps, COPERNICUS datasets, climatic data including solar irradiance, temperature, rainfall). The organisation of these data in GIS and the data analysis/modelling is an important part of the work. Developing a habitat suitability model requires techniques such as statistical modelling (linear and logistic regression), using GIS functions and programming in software such as ArcInfo, QGIS, GRASS or R. Furthermore the habitat suitability maps need to be validated at local level in collaboration with bee associations and for specific case studies in Europe (Malta, Croatia, Italy, UK, and Belgium). Collaboration within the JRC is set up in the framework of this project to test if the maps of habitat suitability can be used to help identify areas where honey production is possibly subject to food fraud. The chemical analysis work is not part of this job description but will be carried out by JRC colleagues. Qualifications: • Doctoral degree (or equivalent) in Biology, Ecology, Biodiversity, Zoology or related field. As equivalent is considered a University degree giving access to doctoral studies and 5 years of research experience in a field relevant to the position.

	• Knowledge in the ecology of honey bee (Apis mellifera) and in spatial data analysis (G.I.S.). • Good oral and written communication skills in English (B2 level), knowledge of other languages an asset. • Excellent record of research activities including publications in international peer-reviewed journals. In addition, the following elements will be considered as an advantage: • Knowledge of individual based modelling and mechanistic models. Having field experience (sampling methods) will be considered as well. • Ability to work in a team and multi-cultural environment. The candidate is expected to be creative and work independently. The candidate is expected to go on mission abroad and to attend or present on scientific meetings or conferences.
Directorate **Unit**	Sustainable Resources Land Resources (Operational) The Scientific Development Unit of the Strategy and Work Programme Coordination Directorate is in charge of the overall JRC Exploratory Research Programme. The operational scientific research will take place in the Land Resources Unit Exploratory Research Project MAHONEY. Further information: An example of our mapping approach for wild pollinators can be found here. More information about our program on biodiversity and ecosystem services in available here.
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. Applicants to the following Calls for expression of interest can also be considered: 1. CAST Permanent - EPSO has launched in January 2017 an 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. Details available at the link below: https://epso.europa.eu/documents/2240_en 2. Call COM/1/2015/GFIV – Research - The JRC has launched in January 2015 a permanent call for researchers FG IV. Details available at the link below:

	https://ec.europa.eu/jrc/en/working-with-us/jobs/vacancies/function-group-IV-researchers **Auxiliary contract staff:** https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/contract-staff-members *Please note that due to the high number of applications received only shortlisted candidates will be contacted.*