Technical Specialist, Remote Sensing Conservation Technology

“In the past century FFI has consistently saved species from extinction and protected habitats from destruction. Their solutions have always been practical, efficient and sustainable in local circumstances.”

Sir David Attenborough, 
FFI Vice-president
Fauna & Flora International

Fauna & Flora International (FFI) saves species from extinction and habitats from destruction, while improving the livelihoods of local people. Our guiding principles are to work with and alongside local partnerships, act as a catalyst for change, make conservation relevant, and base decisions on sound science. Founded in 1903, FFI is the world’s longest established international conservation body; our conservation work, and impact, spans the globe.

Conservation Capacity & Leadership

Long-term conservation success depends on developing a network of committed individuals and institutions that are strong enough and effective enough to address the threats to our natural world. FFI has always worked on the premise that solutions to conservation problems ultimately lie in local hands. We actively promote the idea of harnessing the knowledge, enthusiasm and potential of those conservation champions on the ground by working with them to increase their effectiveness. The Conservation Capacity & Leadership team works across FFI’s international portfolio to create opportunities for staff, partners and beyond to maximise their potential for conservation good. Support is provided through a range of programmes including Partnerships and Organisational Development, Conservation Leadership, Livelihoods and Governance, Professional Development, Knowledge Management and Technology.

Technology Programme

We are acutely aware of the challenges we face. The world’s remaining natural habitats, and the species that depend on them for survival, are under greater pressure than at any time in recent history. However, advances in technology are providing us with exciting and innovative opportunities, methods and tools to help solve these challenges. FFI works closely with a range of partners to identify and nurture projects that will deliver real conservation gains through technological innovation.

We believe good conservation decision-making depends on good information. Baseline biodiversity surveys, monitoring transects, household surveys, groundwater sampling points, habitat maps, satellite images, camera trap photos, aerial videos and underwater sound recordings; conservation data is as diverse as the nature it seeks to understand. These data are also fundamental to FFI’s Mission. In working with our partners we seek to harness information like this to understand the local situation, ecologically and socially, and to help inform landscape-level approaches.

The Opportunity

FFI is seeking a Technical Specialist with expertise in Remote Sensing to join our Conservation Technology team. You will have postgraduate qualifications in Remote Sensing or Geographical Information Systems (GIS), or alternatively substantial experience in applied RS/GIS with a degree in life sciences, environmental studies or another relevant subject. With a passion for conservation, you will have substantial experience in applying remote sensing methods to spatial and temporal analyses of wildlife, conservation or environmental issues. A working knowledge of remote sensing methods to support Carbon assessments, particularly within the framework of REDD+ (such as applying using Verra’s VCS methodologies) will be especially relevant. Practical experience in
programming, webGIS and applied statistics are essential. You will have strong numerical, writing and organisational skills, be highly motivated, show initiative and have the ability to work both independently and as part of a team.

You will work across FFI’s portfolio of conservation programmes, supporting and growing the use of RS for conservation planning and robust monitoring throughout the organization. In particular you will support REDD+ and other programmes of work for nature-based solutions (NbS) to tackle climate change. In addition to technical delivery, you will provide advice and develop training for project staff and partners. You will support FFI to pursue new opportunities and collaborations with suitable partners to scale-up the use of RS approaches by our partners and projects.

In return, the role offers the opportunity to work within an international, impactful and ground-breaking organisation, at the forefront of global conservation. In addition, FFI offers a generous pension contribution, attractive annual leave allowance and life insurance. Our offices are located in central Cambridge, just a few minutes’ walk from glorious historic buildings and museums, the picturesque River Cam, the central market and shopping centre, and a host of cafés and restaurants.

Terms and Conditions

Start Date: As soon as possible

Duration of Contract: Permanent

Probation Period: Six months

Salary: circa £36,000 per annum dependent on skills and experience

Location: Fauna & Flora International, Cambridge
(Current policy permits partial remote working from within the UK)

Benefits: 25 working days annual holiday entitlement plus Public/Bank Holidays and any normal working days that fall between 24th December and 31st December inclusive, during which time FFI UK offices are closed.

For employees on UK-based contracts, FFI currently provides a pension contribution of 8% of salary after 3 months’ continuous employment.

Group Life insurance, currently set at a benefit of 4 x basic salary

Hours of Work: This is a full-time position, working 37.5 hours per week Monday to Friday inclusive.
Job Description

Job Title: Technical Specialist, Remote Sensing

Reporting to: Senior Technical Specialist, Conservation Technology

Key Relationships: Analytics Officers
Technical Specialist, Analytics
Climate & Nature Linkages REDD+ specialists
MEL team
Programme and Project staff of key in-country workstreams

Purpose:

To provide technical delivery and advice on Remote Sensing to FFI projects, and support the development of FFI’s capacity through:

- Remote Sensing and related geospatial analyses, reporting and data visualisation
- Development of proposals with project staff to improve and increase the use of Remote Sensing approaches
- Mentoring and training of cross-cutting and regional Conservation Technology/Analytics staff
- Support the improvement of associated field collection processes, particularly for Remote Sensing, and standards of data management across the organization
- Development of collaborations to advance FFIs use of the latest in Remote Sensing tools and methods

Specific Duties:

Technical support to projects

- Provide Remote Sensing technical services including, for example, land use change analysis, habitat mapping, vegetation condition and carbon assessments using a range of EO platforms (optical, SAR, LIDAR; satellite and UAV)
- Create visuals (static and web-based maps) for reporting, proposals and external communication pieces
- Produce technical reports and presentations synthesizing analysis methods and results for a range of audiences
- Contribute to the development of models and tools using ESRI and/or relevant open source software (e.g. Google Earth Engine, R)
- Provide technical advice to regional, cross-cutting and in-country teams for scaling up use of Remote Sensing approaches

Development of FFI Conservation Technology capacity

- Lead on the development of training materials and contribute to the delivery of training for staff and partners in Remote Sensing and geospatial data management, software, tools and methods
- Engage with regionally-distributed FFI Analytics and Conservation Technology practitioners, to facilitate knowledge exchange via internal (e.g. Yammer, MyFFI, Teams, Working Groups) and external (e.g. WILDLABS) community platforms.
- Work to develop new projects and collaborations for the Analytics/Cons Tech team to enable and promote the advanced use of Remote Sensing technologies
- Support strategic growth of use of conservation technologies
- Support technical knowledge exchange between regional staff through building internal communities of practice on Remote Sensing conservation technologies and methods
- Contribute to the development of FFI’s ArcOnline platform and associated tools (e.g. Survey123, FieldMaps)
- Keep up-to-date with developments in conservation use of Remote Sensing and geospatial tools and methods

**General**
- Ensure all work is delivered in full compliance with FFI strategy, policies and procedures, including Focal Point and the Delegation of Authorities
- Participate in discussions and presentations with central and distributed FFI conservation programmes, and with partners and external stakeholders as appropriate
- Represent FFI to external parties as requested
- Undertake any other tasks commensurate with the position that may be requested of you, from time-to-time, by the Senior Technical Specialist, Conservation Technology

**Person Specification**

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<th>Essential</th>
<th>Desirable</th>
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<td><strong>Skills</strong></td>
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<tr>
<td>- Demonstrable command of RS data and platforms e.g. ENVI, eCognition, ERDAS, GEE</td>
<td>- Experienced with statistical spatial analyses and modelling in relation to carbon accounting methodologies</td>
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<td>- Extensive experience with GIS software - ArcGIS Pro preferable to Desktop v10x and/or QGIS</td>
<td>- Competence in other spatial softwares for applied use of RS outputs, e.g. spatial planning or connectivity analysis</td>
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<td>- Programming skills relevant to RS e.g. Python, IDL, R, JavaScript</td>
<td>- UAV deployment design and data processing for RS and other mapping purposes (and associated software)</td>
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<td>- Proven wide-ranging geospatial data handling, including satellite imagery procurement, data management and manipulation skills</td>
<td>- Experience with development of webGIS tools</td>
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<td>- Strong communication skills, written and verbal, to both technical and non-technical audiences</td>
<td>- Fluency or working proficiency in other language(s) - particularly French, Spanish, Portuguese, or Bahasa</td>
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<td>- Ability to collaborate and network with diverse partners</td>
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<td>- Fluency in English</td>
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<td><strong>Knowledge and experience</strong></td>
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<td>- Postgraduate or equivalent level qualification in RS and/or GIS, or alternatively a degree or equivalent level qualification in life sciences, environmental studies or other relevant subject with extensive experience in applied RS</td>
<td>- Experience with SAR and LiDAR, particularly from spaceborne platforms (e.g. Sentinel 1 and GEDI)</td>
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<td>- Proven, substantive experience across a range of remote sensing data/methods, including survey design and LULC change analysis, preferably for conservation and/or environmental management purposes</td>
<td>- General understanding of REDD+ validation and verification, particularly under the VCS, CCBS and Plan Vivo Standards and associated tools e.g. Verra risk allocation tool</td>
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Experience of the application of GIS and remote sensing techniques in the context of REDD+ / NBS
Applied experience of new areas/sound understanding of advanced and new RS techniques, e.g. AI and ML approaches
Familiarity with general environmental, ecological and biological processes, biodiversity threats and impacts

• Good understanding of international conservation and of the NGO sector

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<th>Behavioural qualities</th>
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<td>• Committed to FFI’s mission and values</td>
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<td>• Ability to show initiative, to work independently and as part of a team</td>
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<td>• Ability to assess and prioritise tasks effectively to accomplish projects to deadlines</td>
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<td>• Willingness to learn and share new knowledge/skills as required</td>
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<tr>
<td>• Strong, demonstrable commitment to conservation and FFI’s mission and values</td>
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<th>Other</th>
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<td>• Ability to travel internationally</td>
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**FFI Values**

Values underpin who we are and how we act. Just as values shape who we are as individuals, they define us as an organisation, creating the culture of success for which Fauna & Flora International (FFI) is renowned. Our people exemplify our shared values, which are interconnected and interdependent:

- We act with integrity
- We are collaborative
- We are committed
- We are supportive & respectful
- We get things done

**How to Apply**

Applications, consisting of a covering letter explaining why you feel you should be considered for this post, a full CV (tailored to the role as advertised, highlighting relevant experience and achievements) and contact details for two referees (who will not be contacted without your permission) should be sent to meredith.palmer@fauna-flora.org

Please mark your application ‘Technical Specialist, Remote Sensing’.

The closing date for applications is **10th April, 2022**. Interviews are likely to be held during the week commencing **25th April, 2022**. Candidates selected for interview will be contacted by email or telephone – please specify your preferred method of contact in your covering letter and indicate
where you saw the position advertised.

Regrettably, due to limited resources and the high number of applications we receive, we are only able to contact short-listed candidates. If you do not hear from us within four weeks of the closing date, please assume that you have not been successful on this occasion.

**Applicants with Disabilities**

FFI encourages applications from individuals with a disability who are able to carry out the duties of the post. If you have special needs in relation to your application, please contact Jade Bedwell, HR Adviser, FFI, on Tel: +44 (0)1223 749044 or Email: jade.bedwell@fauna-flora.org.

FFI values diversity and is committed to equality of opportunity