

## JOB DESCRIPTION

<b>JOB TITLE</b>	Lake Tanganyika Spatial Scientist, Africa Region
<b>LOCATION</b>	Location:Kigoma, Tanzania
<b>JOB FAMILY</b>	Science
<b>JOB NUMBER</b>	400007, Applied Scientist III (ICR)
<b>SALARY GRADE</b>	8
<b>STATUS</b>	Salaried



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### SUMMARY

Many of the last remaining intact terrestrial and freshwater systems in the tropical world are in Africa - from the intact delta of the wild Ogooué River to the grasslands of Northern Tanzania to the deep and spectacular lakes of the Rift Valley. Ecosystem services such as fish protein, clean water, and floodplain productivity that intact ecosystems provide act as life support for many poor, rural communities dependent upon them. Economies of sub-Saharan Africa are also growing rapidly, and ecological systems and services are likely to be significantly stressed in the coming decades. We need accurate and compelling conservation-related spatial data, remote sensing analysis, and map products to create better informed decision making, whether at the national government or local community scale.

The Nature Conservancy's Africa Region seeks a broadly trained scientist with expertise in complex spatial analysis over large landscapes. This person will work on projects related to spatial database management, participatory mapping of ecosystem services, and spatial analyses in priority freshwater and terrestrial ecosystems of the Lake Tanganyika Basin and its riparian countries (Tanzania, Zambia, Burundi and the Democratic Republic of the Congo). She/He will focus on projects that identify existing ecological resources and ecosystem services as well as threats to those resources. This person will also work to integrate socioeconomic aspects - such as farmer or fisher perceptions - into spatial analyses as a team member working with The Nature Conservancy and the Lake Tanganyika Authority to build an Atlas of Freshwater Resources for use by a multitude of stakeholders operating within the Lake Tanganyika Basin. This person will engage in capacity building activities to enhance skills sets for members of the Lake Tanganyika Authority and other national and regional stakeholders to use spatial products generated through projects. She/He is responsible for various project-related tasks, including project planning, analysis, report preparation and publication of results. She/He may also be expected to provide detailed spatial analysis and map production in support of our other programs throughout the continent, such as the Greater Mahale Ecosystem in Tanzania, the African Great Lakes Region, the Ogooué River in Gabon, the Tana River in Kenya, and the Kafue River in Zambia. Key approaches include support to the Lake Tanganyika Authority, national governments, and other stakeholders in freshwater resource prioritization and mapping, water infrastructure planning, source water protection, freshwater protected area planning, and freshwater fisheries management.

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### ESSENTIAL FUNCTIONS

The spatial scientist supports landscape-scale spatial analysis, with a focus on freshwater ecosystems, related to The Nature Conservancy and the Lake Tanganyika Authority's work in the Lake Tanganyika Basin and its four riparian countries: Tanzania, Zambia, Burundi, and DRC. Requires sufficient knowledge and work experience in one or more of the following functions:

- Advanced knowledge of management, manipulation and analysis of both vector and raster spatial data in geo-coded database structures;
- Strong cartographic skills;
- Experience with remote sensing;
- Ability to manage and coordinate projects and coordinate closely with Program Managers and other science staff; and
- Experience presenting projects at conferences and meetings and writing progress reports, final reports, scientific manuscripts and developing training materials in both French and English.

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### RESPONSIBILITIES & SCOPE

- **Science Activities:** Conducts participatory ecosystem service mapping and modeling and application of results. Integrates spatial data with field surveys to document social and ecological systems in project areas using standard methods and techniques.
- **Innovation:** Participates in the ongoing development of new tools, methods, processes, and techniques

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*The Nature Conservancy is an Equal Opportunity Employer. Our commitment to diversity includes the recognition that our conservation mission is best advanced by the leadership and contributions of men and women of diverse backgrounds, beliefs and cultures. Recruiting and mentoring staff to create an inclusive organization that reflects our global character is a priority and we encourage applicants from all cultures, races, colors, religions, sexes, national or regional origins, ages, disability status, sexual orientations, gender identities, military or veteran status or other status protected by law.*

that improve conservation action in The Nature Conservancy's conservation priority areas and thematic opportunities.

- **Communications:** Communicate the role of The Nature Conservancy in the conservation of biodiversity, and explain the utility of science-based conservation to partners. In collaboration with the Conservation Director and Africa TNC Program Managers, communicate regularly with key project partners and other staff to maintain strong partnerships and facilitate effective conservation.
- **Information Requests:** Respond to requests for ecological information from partners and provide interpretation, as needed.

**MINIMUM QUALIFICATIONS**

- Master's degree in Geographic Information Science, Ecology, Geography or related field and 4 years related experience, or equivalent combination of education and experience.
- Experience in designing, maintaining and analyzing spatial databases to meet organizational needs.
- Experience in developing and delivering web-based training materials using tools such as Screenshot-O-Matic, WebEx, or TeamViewer.
- Demonstrated experience in teaching others how to use common spatial analysis tools and map product outputs.
- Record of peer reviewed publications in scientific journals.
- Experience fundraising and/or writing grants and research proposals
- Experience leading or participating on cross functional teams.
- Experience working and communicating with a wide range of people
- Experience managing complex projects including the financial aspect and coordinating the work of peers and partners
- Fluency in speaking, reading and writing in French and English is required.

**PREFERRED KNOWLEDGE, SKILLS & EXPERIENCE**

- Graduate degree in biological or information sciences with coursework indicating knowledge of complex spatial analysis considered.
- Demonstrated experience with landscape-scale spatial analysis and freshwater modeling. Knowledge of climate change impacts on ecosystems and methods for understanding community perceptions of these changes is highly desirable.
- Project management and administrative experience, database management, word processing, and open source GIS skills (e.g. QGIS).
- Ability to develop maps in ArcGIS Online to share with partners.
- Ability to work effectively with others under pressure and tight deadlines. Capable of working independently to complete projects.
- Communicating clearly via written and spoken means in English and French. Communication skills in Swahili and at least one other language common to the African Great Lakes region are desirable.
- Excellent graphical communication skills. Ability to write technical reports utilizing available resources. Ability to produce professional-quality map products.
- Willingness to travel throughout the Lake Tanganyika Basin and particularly the phase 1 project focal areas in Tanzania and Zambia.
- Comfort articulating and advocating for The Nature Conservancy's conservation mission.

**ORGANIZATIONAL COMPETENCIES**

Communications	Effectively expresses messages verbally and in writing. Actively listens to others. Fosters open exchange of issues. Is timely with information.
Flexibility & Innovation	Flexible to changing circumstances. Takes innovative approaches towards work. Takes calculated risks and makes dependable decisions in the face of uncertainty.
Interpersonal Savvy	Maintains positive working relationships. Contributes to productive partnerships inside and outside the organization. Understands team member roles and values the contributions of others. Effectively deals with conflict.
Open to Learning	Versatile learner and committed to self-improvement. Employs strengths effectively. Willingly shares knowledge with others. Seeks coaching on areas needing improvement. Adjusts behavior/performance as needed. Views mistakes as learning opportunities.
Organizational Awareness	Understands the basics of our business. Knows how local job relates to the big picture & contributes to the overall strategy. Knows how/why things work inside TNC. Easily moves through internal networks and channels for success.
Produces Results	Takes Initiative. Focuses on priorities. Strives for excellence. Is dependable and accountable for results. Persistent in the face of obstacles and meets deadlines.

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**HOW TO APPLY:**

To apply for this position, please submit a resume/CV and cover letter to [Africa@tnc.org](mailto:Africa@tnc.org) subject line: SPATIAL SCIENTIST, AFRICA PROGRAM. Applications must be submitted by Friday, April 1<sup>st</sup>, 2016 to be considered.

*This description is not designed to be a complete list of all duties and responsibilities required for this job.*

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