**JOB TITLE:** Senior Web Developer  
**DIVISION/DEPARTMENT:** Information Management/Science, Policy and Information

### 1. OVERALL PURPOSE OF JOB

To lead the development of data-driven web systems that deliver on a number of BirdLife’s strategic priorities and aim to fulfil the needs of a wide variety of users. Principal work areas include:

- Development of web-based systems with a focus on BirdLife’s scientific data and information.
- Strategic leadership in the development and improvement of BirdLife’s web applications and provision of expert technical advice at all levels on a wide variety of BirdLife projects.
- Developing and maintaining positive relationships with external web development companies ensuring service levels are suitable for organisational and staff needs.
- Engagement with end-users throughout development activities and integration of user testing into all projects. Communicating the work of the Information Management team to internal and external audiences.

### 2. WORK RELATIONSHIPS

**REPORTING TO (LINE MANAGER):**

Head of Information Management

**REPORTING TO JOB HOLDER (LINE MANAGED STAFF):**

There are currently no BirdLife staff that report to this position but as an area of growth this could change in the future. This role will be expected to manage contracted third-party developers especially during short-term project-funded work.

**PRINCIPAL OTHER WORKING RELATIONSHIPS/RESPONSIBILITIES WITHIN SECRETARIAT:**

(Include nature of work relationship)

Information Management (IM) team – The Senior Web Developer will sit within the IM team and will work closely with the other four team members who have a variety of GIS and database skills allied with a deep understanding of the underlying datasets.

Communications team – The Communications team is responsible for the content-driven part of the BirdLife external website (Drupal based) as well as a number of project websites and the BirdLife extranet. This role will work closely with the manager of web content to ensure that data-driven applications are integrated with existing content.

Senior Management Team – The Senior Web Developer will provide advice to BirdLife senior management on web development matters including the planning, budgeting and implementation of major web development projects.

Project leads – This role will work closely with project staff across all the teams within BirdLife to deliver web-based systems that fulfil both project aims and user needs.

General users – The Senior Web Developer will provide advice and training as necessary. Understanding user needs and acting on user feedback is a central part of the role.
PRINCIPAL WORKING RELATIONSHIPS/RESPONSIBILITIES WITHIN BIRDLIFE NETWORK:

The BirdLife Secretariat manages the global site and species databases (and associated web interfaces) on behalf of the Partnership and relies on Partner staff to input, validate and review data. Partners are therefore critical stakeholders for you to engage with. The Senior Web Developer will provide advice and technical assistance to some of the smaller Partners whilst looking to learn from, and better integrate with, data applications developed by some of the larger Partners with much bigger development teams. In all cases the Senior Web Developer will engage with end-users within the Partnership to better understand their needs in order to develop web-based applications that directly benefit their conservation and research efforts.

PRINCIPAL EXTERNAL RELATIONSHIPS/RESPONSIBILITIES:

Conservation NGOs – This role will coordinate with technical development staff from a number of other conservation organisations especially around joint projects that have an emphasis on web-based data and information delivery. Examples include the Integrated Biodiversity Assessment Tool (IBAT – see www.ibat-alliance.org/) and the Key Biodiversity Areas (KBA) Partnership website (see www.keybiodiversityareas.org/)

Third-party contractors – A number of contracted third-party web developers have been and are being used to develop data and information systems for both core and project-based work and this role will take the lead on specifying requirements and ensuring deliverables meet these specifications.

Other stakeholders – Existing data and information systems have a wide range of stakeholders outside of the BirdLife secretariat and partnership including (in no particular order) decision makers, academia, businesses, funders, donors, educators, students, job seekers, bird enthusiasts and of course the ‘general public’. This role will focus on understanding the needs of these user communities and ensuring that web systems are developed that take their needs into account.

3. KEY WORKING RELATIONSHIPS GRID

<table>
<thead>
<tr>
<th>Contact</th>
<th>Level (1-3)</th>
<th>Contact</th>
<th>Level (1-3)</th>
<th>Contact</th>
<th>Level (1-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BirdLife network / other NGOs</td>
<td>3</td>
<td>General public</td>
<td>2</td>
<td>Policy makers (institutional/politicians/corporations)</td>
<td>1</td>
</tr>
<tr>
<td>BirdLife advisory groups, committees, reg. councils</td>
<td>2</td>
<td>Press &amp; media</td>
<td>1</td>
<td>Funding organisations (institutions, foundations, corporations)</td>
<td>2</td>
</tr>
<tr>
<td>BirdLife Global Council</td>
<td>1</td>
<td>Regulators/legislators/auditors</td>
<td>1</td>
<td>Individual donors/members</td>
<td>2</td>
</tr>
<tr>
<td>Suppliers/service providers</td>
<td>3</td>
<td>Scientific community</td>
<td>2</td>
<td>VIPs/royalty/high worth individuals</td>
<td>1</td>
</tr>
</tbody>
</table>

Level of Contact
1. = General Informing. "Appearance, first impressions". May have some independent outside exposure and contact, primarily informative.
3. = Justifying/Negotiating - "Influencing decision makers". Independent exposure as lead contact, representing Birdlife to highly influential people. Responsible for complex and sensitive/high risk communications.
4. MAIN DUTIES/WORK PROGRAMME RESPONSIBILITIES

By main work area:

**Development of web-based systems**
Lead role in maintaining and improving current web systems and developing new web systems for a variety of projects. Common responsibilities include:

- Undertaking user needs assessments
- Design of the overall architecture of the web application
- Implementation of a robust set of services and APIs to power the web application
- Building reusable code and libraries for future use
- Optimization of the application for maximum speed and scalability
- Implementation of security and data protection
- Translation of UI/UX wireframes to visual elements
- Integration of the front-end and back-end aspects of the web application
- Undertaking usability testing.

**Leadership, strategy and planning**

- Provide advice to BirdLife senior management on web development matters including the planning, budgeting and implementation of major web development projects
- Develop a long-term strategy for BirdLife’s web application architecture and prepare and maintain a work plan to deliver on this strategy
- Keep up to date with industry best practice and research new technologies relevant to current and future projects. Plan how best to integrate these into the organisation.

**People and resources**

- Develop and maintain positive relationships with external web development companies ensuring service levels are suitable for organisational and staff needs.
- Line management of short-term contract staff for specific projects with responsibilities including recruitment, training, work planning and performance management.
- Advise on, and in some cases manage, hardware and software purchases required for web application development.

**Communication and user engagement**

- Provide a forum for user engagement and a process to collect and act on user feedback
- Develop and maintain technical documentation associated with all development work
- Provide user training where necessary

5. LIMITS OF AUTHORITY/RESPONSIBILITY FOR RESOURCES

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<thead>
<tr>
<th>RESPONSIBILITY AREA</th>
<th>LEVEL OF AUTHORITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial/Budgetary</td>
<td>Delegated authority from Head of Division as needed to spend from divisional and/or project budgets</td>
</tr>
<tr>
<td>Contracts – Funders</td>
<td>Delegated responsibility from Head of Division as needed to submit proposals and negotiate contracts</td>
</tr>
<tr>
<td>Contracts – Staff/Consultants</td>
<td>May have delegated responsibility to hire short term/project staff/consultants and recruit interns/volunteers</td>
</tr>
<tr>
<td>Contracts – Service providers</td>
<td>May have delegated responsibility to negotiate contracts</td>
</tr>
<tr>
<td>Legal Responsibility</td>
<td>May have delegated responsibility to negotiate funding contracts</td>
</tr>
<tr>
<td>Other</td>
<td></td>
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</tbody>
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# 6. Education/Skills and Other Special Requirements

<table>
<thead>
<tr>
<th>REQUIREMENTS</th>
<th>KNOWLEDGE/SKILLS/ATTRIBUTES</th>
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<tbody>
<tr>
<td><strong>Minimum General Education</strong></td>
<td>Degree or higher in a relevant subject area OR equivalent relevant work experience</td>
</tr>
<tr>
<td><strong>Job Specific Education/Qualification</strong></td>
<td>BSc, Computer Science or equivalent</td>
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</tbody>
</table>
| **Job Specific Knowledge**                         | • Experience in back-end development with detailed knowledge of at least one programming language such as PHP, Ruby, Java, Python, Scala or Go.  
  • Experience in front end development with detailed knowledge of HTML, CSS and JavaScript.  
  • Demonstrable knowledge and track record of relational database design and implementation.  
  • Experience using modern MVC frameworks and related concepts for building web applications and APIs. |
| **Experience**                                     | • Demonstrable experience of developing data-driven web systems in a previous role.  
  • Experience of initiating projects that are led by user needs and iteratively developed through user testing. |
| **Management & organisational skills**             | • Experience of managing short-term contract staff.  
  • Experience of managing positive relationships with third-party support companies.  
  • Ability and motivation to deliver high quality work with minimum supervision.  
  • Flexible approach to managing and prioritising a high workload with multiple tasks in a changing environment with tight deadlines. |
| **Communications skills**                          | • Excellent interpersonal and oral communication skills with the ability to present, consult, influence and build credibility with internal colleagues at all levels and external system providers.  
  • Excellent written skills with the ability to produce technical reports and business cases for a senior, non-technical audience. |
| **Creativity & Initiative**                        | • Logical, practical and creative approach to problem solving.  
  • Experience of keeping up to date with new technology and industry best practice. |
| **Computer Literacy**                              | Covered in job-specific knowledge.                                                          |
| **Languages**                                      | Fluency in English required. Other languages an advantage but not essential.                 |
| **Travel requirements**                            | • Occasional travel to BirdLife Regional offices  
  • Occasional travel to relevant training events, workshops and conferences. |
| **OTHER DESIRED/HELPFUL KNOWLEDGE/SKILLS/ATTRIBUTES** |                                                                                             |
| • Specific experience designing and building web applications based on scientific research data  
  • Experience with geospatial database extensions and web mapping technologies (e.g. PostGIS, Geoserver and OpenLayers)  
  • Experience using configuration management tools such as Puppet, Chef, Ansible, Salt, etc.  
  • Experience using common application deployment strategies, continuous integration and version control  
  • Experience and knowledge of JavaScript libraries and frameworks  
  • Ability to implement automated testing platforms and unit tests |
• Understanding differences between multiple delivery platforms (such as mobile vs desktop), and optimizing output to match the specific platform

Prepared by: Alex Tate
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