The BID workshop on biodiversity data mobilization is part of the capacity enhancement approach of the Biodiversity Information for Development (BID) programme led by GBIF. The workshop has online and onsite components, both with a strong practical approach. This report refers to the second section of the workshop (out of three): an on-site event held at Hotel Chez Lando, Kigali, Rwanda the 22-25 August 2016.

The workshop aims to contribute to enhancing the capacity of the BID-funded project teams to plan and implement biodiversity data publishing efforts effectively and according to GBIF standards. It has a strong focus on the technical aspects of data mobilization—in particular everything related to the data lifecycle: digitization, management and online publishing. The social aspects of the process are also considered.

Participants have the possibility to evaluate their learning and receive an official certification in the form of a Mozilla Open Badge. The official language of the workshop is English, but there is partial support for French speakers through francophone trainers and French translation of most resources.

The course was led by trainers from the GBIF community: Néstor Beltrán (SiB Colombia), Nicolas Noé (Belgian Biodiversity Platform), Sharon Grant (Chicago Field Museum) and Sophie Pamerlon (GBIF France). The event was supported by six BID mentors, from which two (Laura Russel, VertNet and Katia Cezón, GBIF Spain) also supported the organization of the event and the preparation of training resources.

The participants' overall evaluation of the event was extremely positive, which they reflected by providing the highest overall scores since the GBIF Secretariat started using this evaluation system. This report summarizes the feedback received and suggests areas for improvement for future events.

1. Contents

The complete structure of the workshop, including details about the activities and materials used can be found in the course collaborative platform (https://goo.gl/ZOmc6G) and the workshop brochure (https://goo.gl/YcvBtj). For full details on the design of the workshop, please check its instructional design document (https://goo.gl/zfkBc3).

2. Participation

Twenty students participated in the on-site event. Thirteen of them represented BID-funded projects, six were BID volunteer mentors and one represented the local organizer. The countries and organizations represented were: the Albertine Rift Conservation Society (ARCOS), Angola, Benin, Costa Rica, DR Congo, Gabon, Ghana, Guinea, Ivory Coast, Kenya, Madagascar, Malawi, Togo, Senegal, Spain, Vertnet and Zimbabwe.

During the course, the participants were divided in four working groups of four to six people, each under the supervision of one of the trainers. Each group had at least one mentor assigned as part of the group. Two of the groups were exclusively composed of francophone participants and were facilitated by francophone trainers. The full list of registered participants and the final composition of the different groups can be found in the course collaboration platform (http://goo.gl/9Y1yuT).
3. Evaluation

Attendees evaluated the event by filling out an anonymous online form to which a link was provided during the last session. It included two sections: the first based on quick assessments of key topics and of the course sessions, and the second based on free-text questions. **16 out of 20 participants** completed and submitted the form.

### 3.1. Key topics

The table at right includes the course features that the participants were asked to rate from 1 (very dissatisfied) to 5 (very satisfied). The overall average scores given in this event are listed. These are then divided into the average scores given by the participants in the English and French speaking groups separately.

All scores were very high (all over 4 and many over 4.5 out of 5). Attendees valued the interaction with the trainers and the quality of the contents most highly. The first is probably thanks to the small size of the work groups, which allowed extended discussion time with the trainers, with a closer, more personal follow-up. The contents were developed based on the participants and the projects they represented, which allowed the development of a very targeted programme.

The preparatory activities and the practical organization scored the lowest, although still in the upper range of the scoring. The lower scores for the preparatory activities might reflect the limited level of engagement of the trainers and organizers in these activities on the online eLearning platform, which was a result of being busy with the preparations for the onsite event. It is remarkable the difference between the two language groups in their scorings of this item. The lower score for the practical organization could be linked to the lack of social activities organized during to the event—which some participants mentioned—and the problems experienced by some participants when transferring the subscription fees to the local host.

The workshop foundations session (led by Sharon Grant) received the highest score. The foundational elements explained during that session were used in all the subsequent ones which, together with a very clear exposition by the presenter, made participants value this session the most.

The session about advanced data publishing scored the lowest (although with a healthy score of 4.06). This is probably due to the fact that it was the most technical of all the sessions, and few people in the audience could follow all its contents fully. It required a high level of understanding of the nature of biodiversity data, which not everyone in the room had the time to achieve during the workshop.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Average score</th>
<th>EN score</th>
<th>FR score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course contents</td>
<td>4.69</td>
<td>4.71</td>
<td>4.67</td>
</tr>
<tr>
<td>Course structure and schedule</td>
<td>4.56</td>
<td>5.00</td>
<td>4.22</td>
</tr>
<tr>
<td>Course materials</td>
<td>4.63</td>
<td>4.86</td>
<td>4.44</td>
</tr>
<tr>
<td>Trainers</td>
<td>4.75</td>
<td>4.71</td>
<td>4.78</td>
</tr>
<tr>
<td>Interaction with my peers</td>
<td>4.50</td>
<td>5.00</td>
<td>4.11</td>
</tr>
<tr>
<td>Preparatory activities</td>
<td>4.25</td>
<td>5.00</td>
<td>3.67</td>
</tr>
<tr>
<td>Practical organization</td>
<td>4.19</td>
<td>4.57</td>
<td>3.89</td>
</tr>
<tr>
<td>Support for languages</td>
<td>4.38</td>
<td>4.71</td>
<td>4.11</td>
</tr>
<tr>
<td>Use of digital and online resources</td>
<td>4.44</td>
<td>4.71</td>
<td>4.22</td>
</tr>
<tr>
<td>Applicability in my work place</td>
<td>4.50</td>
<td>5.00</td>
<td>4.11</td>
</tr>
</tbody>
</table>

**Participants gave the workshop features an overall score of 4.49 out of 5. The latest training event organized by the GBIF Secretariat obtained 4.13 points out of 5.**

### 3.2. Workshop sessions

The next table summarizes the average scores that participants assigned to the different sessions using the same five-point scale mentioned in section 3.1. Each session scored above 4 and many over 4.5. The workshop foundations session (led by Sharon Grant) received the highest score. The foundational elements explained during that session were used in all the subsequent ones which, together with a very clear exposition by the presenter, made participants value this session the most.

The session about advanced data publishing scored the lowest (although with a healthy score of 4.06). This is probably due to the fact that it was the most technical of all the sessions, and few people in the audience could follow all its contents fully. It required a high level of understanding of the nature of biodiversity data, which not everyone in the room had the time to achieve during the workshop.
3.3. Free-text responses

In the second section of the evaluation form the students had the opportunity to provide more detailed feedback in free-text responses. The questions and a summary of the responses follow below:

a) In which area did you increase your knowledge the most?
   - Data management, transformation and cleaning (9 people)
   - Planning a biodiversity data mobilisation project (7 people)
   - Biodiversity data digitization (6 people)
   - Use of the IPT (5 people)
   - How to publish data in GBIF (5 people)
   - Use of Open Refine (2 people)

b) Which of the topics studied will be the most useful in your daily work?
   - Biodiversity data cleaning (9 people)
   - Biodiversity data publishing (8 people)
   - Use of the IPT (4 people)
   - Biodiversity data digitization (3 people)
   - Use of Open Refine (3 people)
   - Planning of a biodiversity data mobilisation project (2 people)
   - All topics (2 people)

c) Is there anything that you would have added to this course? Any follow-up after it?¹
   - More time used on data publishing (4 people)
   - Georeferencing (2 people)
   - Database systems and data capture tools (2 people)

¹ Clear recommendations on content additions and follow-ups included in any other question have been summarized here too.
- Work with the data brought by the participants (2 people)
- More time used on data cleaning (1 person)
- More time used on data digitization (1 person)
- More information on data standards and DwC (1 person)
- More information on how to motivate data holders to publish (1 person)
- Visualization of published data in GBIF.org (1 person)
- Biodiversity data use (1 person)
- The workshops should be longer (1 person)
- I would like to maintain contact with the trainers and mentors (1 person)

**d) Any other comments or suggestions?**
- The workshop was excellent / well prepared / really successful (6 people)
- There was not enough time to cover all that was needed, especially to practice (5 people)
- The event should include social activities: e.g. a day to explore the host country, (2 people)
- Further training events should be organised to deepen into these topics (2 people)
- The follow-up and helpdesk activities should be reinforced to ensure the successful implementation of projects (1 person)
- Use the Kolb cycle for the training modules (1 person)

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**4. Evaluation and recommendations by the GBIF Secretariat**

The evaluation of the course has been in general exceptionally positive, substantially higher than all previous training events organised by the Secretariat.

It is especially encouraging to see that the topic in which most of the participants reported having most increased their knowledge (data cleaning) matches with what the majority consider to be most relevant for their everyday work.

Based on the feedback received during the course and through the evaluation form, the Secretariat offers the following recommendations for improving future training events:

**A. The use of languages in the BID training events**

It can be easily noticed that the two language groups consistently scored all workshop features and sessions differently, with the francophone groups expressing lower levels of satisfaction in nearly all elements. This is especially significant as 55% of the participants followed the event as part of one of the francophone groups.

The scores show high levels of satisfaction in both groups, but the difference between them makes worth reflecting on its causes and trying to find ways to reduce this difference.

There is no easy solution to this situation, as it would have been impossible to organize the event with all public activities being carried out in French and only partial support for English speakers (because very few of the English speakers understand French), and because the most obvious alternatives would substantially increase the costs of the organization of an already costly event (e.g. organizing parallel events fully implemented in each of the languages required or hire specialized simultaneous translation).

The GBIF Secretariat will continue exploring options to improve this situation and provide the same level of quality of service to all participants, despite the language they use.
B. Emphasize the practical work using small groups

The organization of the course around small work groups focused on practical work with individual trainers associated to them seems to have been key to the success of this course. GBIF should maintain this approach to future BID training events. Having additional support from mentors also improved the group work, and hopefully this collaboration between mentors and project representatives will continue to bear fruits during the implementation of the BID projects.

C. Explore options to increase the length of the training events

Many of the participants highlighted the need to have a longer event, especially to allow more practice time, for example where the participants can use their own data. This last option was offered to participants as an alternative to working with the materials prepared by the trainers. However, none of the participants chose to make use this possibility.

The Secretariat and the team of volunteer mentors will continue to provide support to project representatives in their data mobilization work during the third part of the workshop and though the online platforms established to support the BID community for the rest of the project implementation time.

D. Continue providing offline access to resources and servers

Following a recommendation from a previous course, the participants received a USB stick at the beginning of the event, loaded with all contents the trainers planned to use.

Local servers were provided to support all practical work, in addition to remote ones that are normally used.

These two measures proved to be very useful and allowed participants to follow all sessions despite the irregular quality of the internet access in the venue. Future events should aim at continue providing these offline alternatives, regardless of the venue chosen.