



Creating a National Biodiversity Database in Gabon and the Challenges of Mobilizing Natural History Data for Francophone Countries



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Language is a major barrier for researchers wanting to digitize and publish collection data in Africa. French-speaking regions of Africa (primarily Central/ West Africa and Madagascar) host some of the highest biodiversity on the continent and therefore are of great importance to scientists and decision-makers. Unfortunately, resources in French about digitization, data management, and publishing are lacking. This has hindered efforts digitization efforts in Africa and rendered these important collections effectively invisible. Producing relevant/applicable resources about digitization in French will help shine a light on these valuable natural history records and allow the data-holders in Africa to retain the autonomy of their collections. Awarded a GBIF-BID (Biodiversity Information for Development) grant in 2021, an international, multilingual network of partners has undertaken the important task of digitizing and mobilizing Gabon’s vertebrate collections. This project stands increase the number of available specimen records on GBIF for Gabon by 40%. Additionally, the French resources we have developed about digitization and mobilization will help serve the Francophone museum community globally.

There are approximately 13,500 vertebrate specimens housed in five different institutions dispersed in the country:

- National School of Water and Forests, Cap Esterias, north of Libreville: mainly fish, Libreville (1953)
- Masuku University of Science and Technology, Franceville, southeastern Gabon (1986)
- Agronomic and Forestry Research Institute, Libreville (1976)
- The Tropical Ecology Research Institute, Libreville and Impassa-Makokou (1976)
- Smithsonian Institution Gabon Biodiversity Program, Gamba, southwestern Gabon (2001)
- The majority of specimens are fish (see Figure 1)

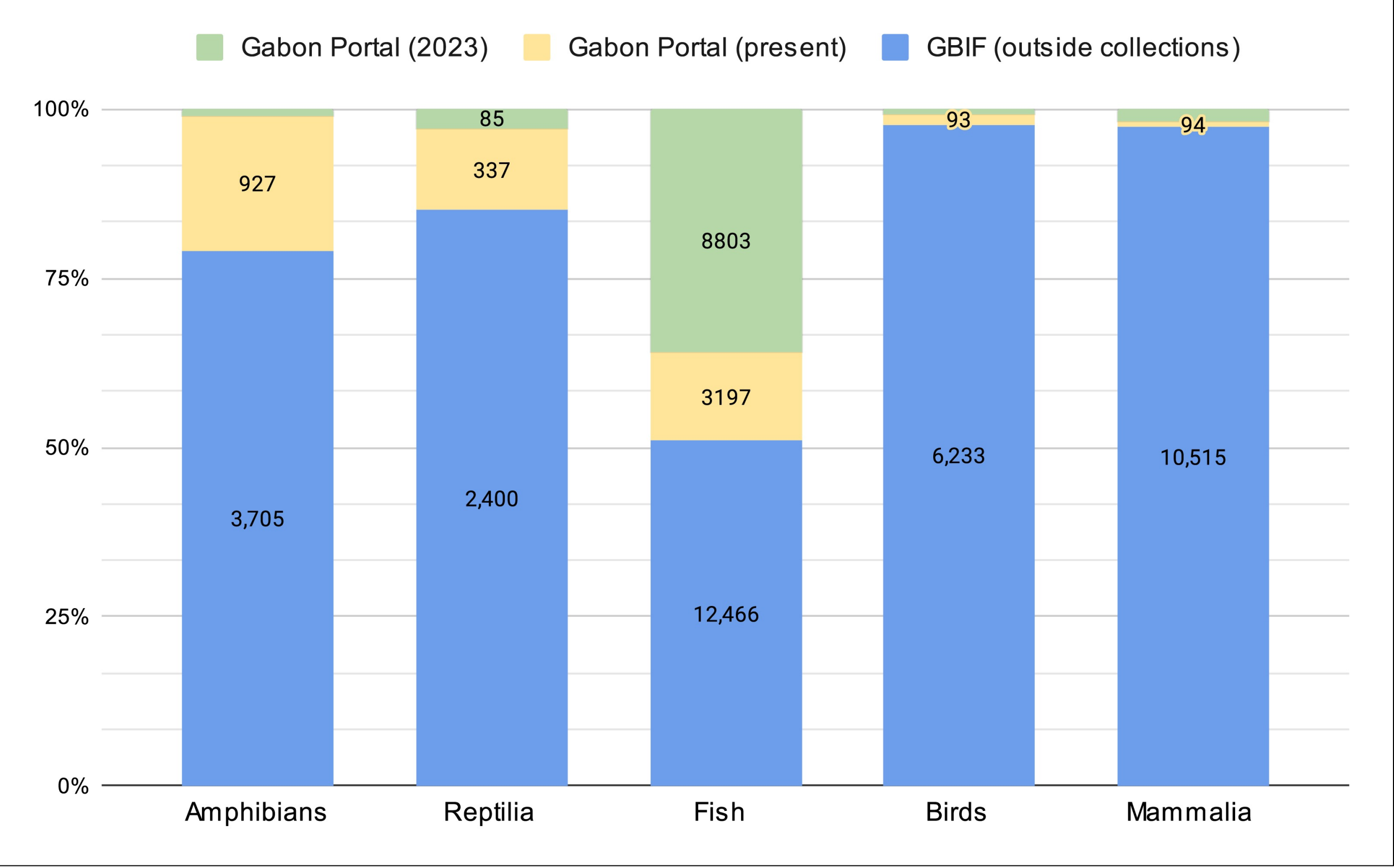


Figure 1. Specimens for Gabon in GBIF and contribution of this project. Blue bars represent all other collections available in GBIF; yellow bars represent specimen records we have added to date; green bars represent additional specimens that will be added by project’s end in 2023.

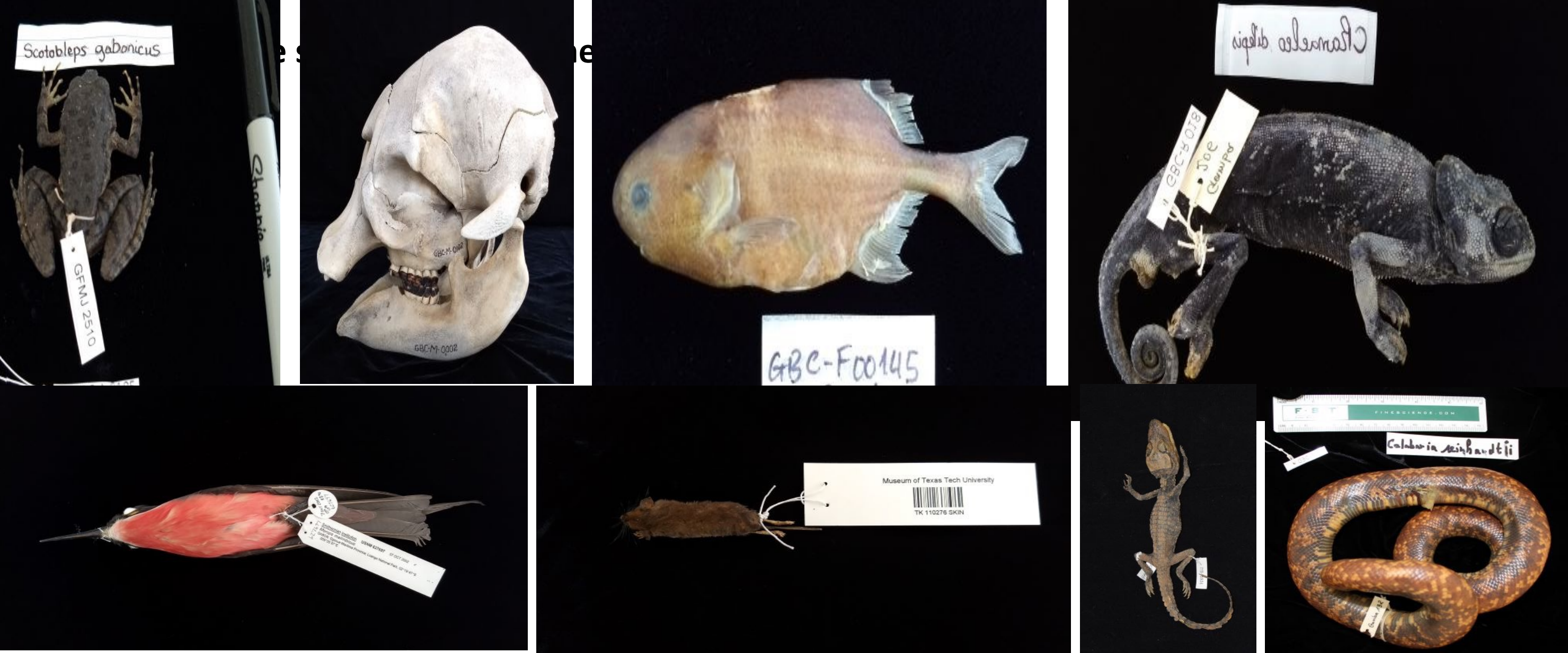


Figure 2. Some photos from the Smithsonian collection

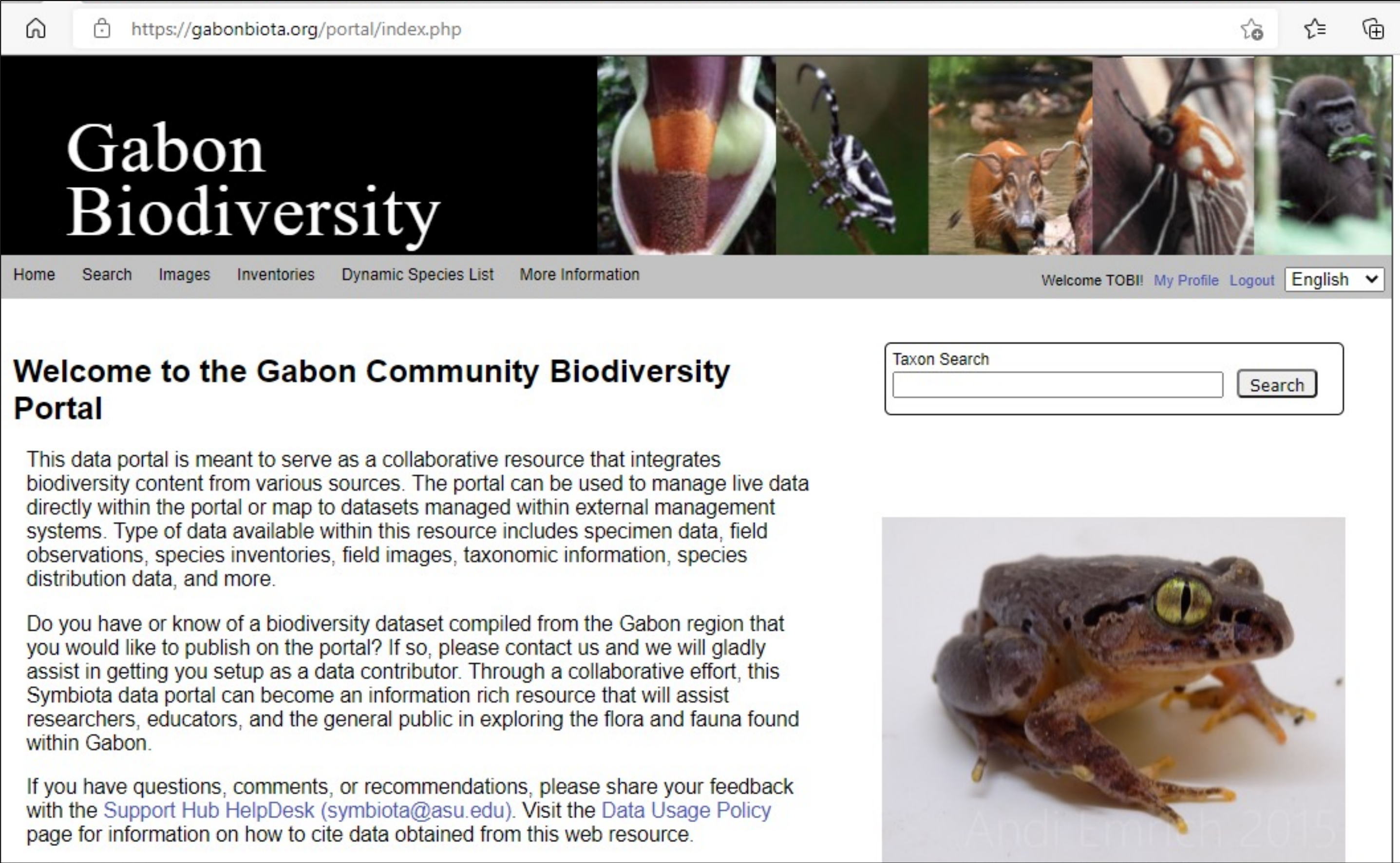
The digitalisation of specimen photos as part of this project will make a significant addition to the Gabon GBIF photo ccollection (see Table 1).

Table 1. Percentage increase in Gabon specimen photos contributed by this project

Taxa	GBIF	Portal	% increase
Amphibians	117	451	386 %
Reptiles	61	91	149 %
Fish	485	-	-
Birds	244	70	29 %
Mammals	6695	62	1 %



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The Gabon Symbiota portal also supports the mapping of specimen occurrences (see Figure 3)

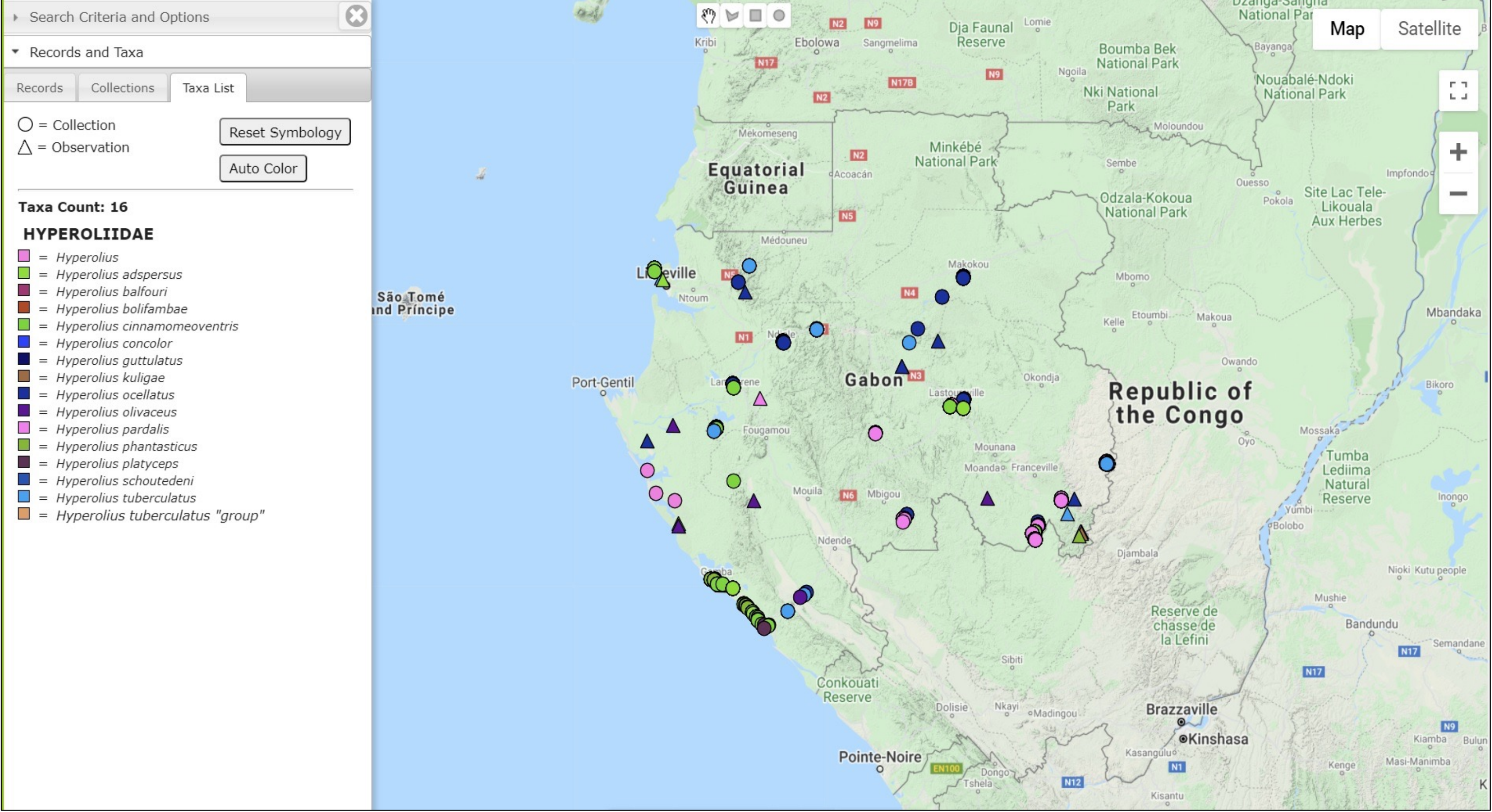


Figure 3. Map of observation and collection records of various species of Reed Frog (*Hyperolius*).

