Why?

Natural history and botanical collections are estimated to contain more than 2.5 billion specimens worldwide and CETAF institutions throughout Europe hold the major proportion of this priceless heritage:
— the only physical evidence of the past occurrence of organisms in space and time.
— a tremendously important basis for biodiversity research.

Biological collection objects need to be consistently referenced with globally unique and stable identifiers, to ideally, redirect users and systems to the images, websites, and metadata of the specimen of interest.

The Information, Science and Technology Committee (ISTC) of CETAF ([www.cetaf.org](http://www.cetaf.org)), in collaboration with the pro-iBiosphere project ([www.pro-ibiosphere.eu](http://www.pro-ibiosphere.eu)) has defined a simple and future-oriented identifier system for specimen based on HTTP-URIs and Linked Data principles, building a bridge to rapidly developing semantic web technologies.

What?

Each individual collection object as well as its associated information resources (e.g. multimedia, RDF, webpages) is designated by a URI chosen and maintained by the institution owning the specimen. Identifiers are typically composed of an institution's web domain, a meaningful subdomain, a path to classes of similar objects, and local objects identifiers (e.g. the object barcode). Since physical objects cannot be transferred via the Internet, users trying to access an object using a web-browser will be redirected to a human-readable representation of the object, typically an html web-page. Likewise, software-systems requiring machine-processable representations will be redirected to an RDF-encoded metadata record (see figure).

Who?

In 2012, the Royal Botanic Garden of Edinburgh (RBGE) published a paper ([Hyam et al. [1]](http://stories.rbge.org.uk/archives/3846)) on using Linked Data principles to issue HTTP URIs for their specimens. In 2013, CETAF-ISTC started a pilot implementation across CETAF institutions and beyond, co-organizing with pro-iBiosphere several hackathons and workshops to give to make assessments and give guidance in the process of implementing them. Today, six CETAF member organisations have successfully implemented HTTP-URI-based identifiers and several more members are underway.

Where?

Guidelines for implementation of a system of stable identifiers for a collection:
Contacts: Anton Güntsch (BGBM), Gregor Hagedorn (MfN), Roger Hyam (RBGE) & Dominik Röpert (BGBM)

Best practices for stable URIs, at a wiki page ([http://wiki.pro-ibiosphere.eu/wiki/Best_practices_for_stable_URIs](http://wiki.pro-ibiosphere.eu/wiki/Best_practices_for_stable_URIs))

Source code and example documents, at GitHub-site ([https://sourceforge.net/projects/stablecollectionidentifiers/](https://sourceforge.net/projects/stablecollectionidentifiers/))

FURTHER READING


