

## **Development of Biodiversity LOD in Japan: a collaboration of taxonomists and information scientists**

Utsugi Jinbo

Department of Zoology

National Museum of Nature and Science, Japan

Taxonomy aims to promote our understanding of biodiversity by descriptions and categorizations of living organisms. Taxonomic information such as species names and classification systems are very important and indispensable to various activities relevant to biodiversity and should be open to the public in usable forms.

Until now, many authorized species name list (checklist) have been published in many taxonomic groups, and its digitization and publication in open data are in progress. To assemble scattered taxonomic information and publish them as open data, following systems are being constructed in collaboration of information scientists. First, I constructed a small database system, which facilitates the management and publish of species checklist by taxonomists themselves. A checklist of Japanese butterflies (BINRAN) has been published by this system. Second, the taxonomic information are translated to RDF and published as Linked Open Data (LOD). The publication is conducted by LODAC (Linked Open Data for ACademia) project, aiming to share academic information using LOD technology. A web interface and a SPARQL endpoint are available from LODAC website (<http://lod.ac/>).

Species name is a principal key to describe biodiversity. Thus, this species name based architecture in LOD can play an important role as a data hub to connect heterogeneous data. In addition, data sharing and collaboration of taxonomists and information scientists are other keys to achieve the practical use of this architecture.