## Xper<sup>2</sup>: managing descriptive data from their collection to e-monographs

Visotheary Ung, Florian Causse, Régine Vignes Lebbe

**Abstract** — Computer Aided Identification (CAI) systems provide users with the resources to relate morpho-anatomic observations with names of taxa, and to subsequently access other knowledge about the organisms. Xper<sup>2</sup> version 2.1 is one of the most user-friendly software in its category. It provides a complete environment dedicated to taxonomic descriptions management. While assisting taxonomists with knowledge acquisition for identification keys, it also helps with the publication of descriptive data by providing a large panel of tools, including analysis facilities (comparison of taxa or descriptors used), full traceability of information and knowledge (by adding references or external links). Xper<sup>2</sup> provides excellent support for automatic online publication of descriptive data and free access kevs, as well as for exporting of datasets for phylogenetic and systematic research. It focuses on interoperability between systems and can import and export into structured descriptive data format (TDWG-SDD), and export to HTML and Nexus formats. Written in Java, it is available on Windows™ Mac™ or Linux in French, English, and Spanish, and a new Chinese version can also be downloaded. With its intuitive interface, Xper2 is aimed at professional taxonomists as well as naturalists who merely want to identify specimens using a readymade application. Xper<sup>2</sup> is free of charge. It can be downloaded at: http://lis-upmc.snv.jussieu.fr/lis/?q=en/resources/softwares/xper2.

**Index Terms** — descriptive structured data, knowledge base, interactive identification key, integrated platform for identification.

V. Ung is CNRS engineer in UMR 7207 CNRS/MNHN/UPMC, MNHN Département Histoire de la Terre, CP48, 57 rue Cuvier, 75005 Paris, France E-mail: visotheary.riviere-ung@snv.jussieu.fr F. Causse is UPMC engineer in UMR 7207 CNRS/MNHN/UPMC, MNHN Département Histoire de la Terre, CP48, 57 rue Cuvier, 75005 Paris, France E-mail: florian.causse@upmc.fr R. Vignes Lebbe is Professor in UMR 7207 CNRS/MNHN/UPMC, MNHN Département Histoire de