The ORCHIS software used to identify 100 orchids species of Lao PDR

Pierre Bonnet, André Schuiteman, Boukhaykhone Svengsuksa, Daniel Barthélémy, Vichith Lamxay, Soulivanh Lanorsavanh, Khamfa Chanthavongsa, Pierre Grard

Abstract — The identification of plants, especially of orchids, is a major obstacle to the regulation of their trade. Lao PDR recently signed the CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora), and is facing many difficulties in its application at its borders, precisely because of lack of resources and information about its flora. This is particularly marked in Laos, where the pressures on the country's natural resources are particularly important because of the growth of this region. The National Herbarium Netherlands, the National University of Laos, and CIRAD have joined within the European project ORCHIS (http://www. orchisasia.org/) to develop, test and disseminate original tools to identify 100 orchids species in Laos. This identification tool, primarily targeted for managers of protected areas and customs authorities of the Country, is adapted to people with only a limited knowledge of botany. The tool, based on the IDAO software developed by CIRAD, enables the creation of a graphic sketch of the plant that is sought, thus allowing to overcome the constraints of language and knowledge of a specialized terminology.

Index Terms — orchids, Laos, biodiversity informatics, taxonomic database, identification tool.

P. Bonnet and D. Barthélémy are with INRA, UMR AMAP, Montpellier, F-34000, France. E-mail: Pierre.bonnet@cirad.fr, Daniel.barthelemy@cirad.fr.

A. Schuiteman (A.Schuiteman@kew.org) is with Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3AB, UK.

B. Svengsuksa (svengpcy@laotel.com), V. Lamxay (vlamxay@yahoo.com), S. Lanorsavanh, and K. Chanthavongsa are with National University of Lao PDR, Faculty of Science of Lao PDR, Department of Biology, P.O. BOX 7322, Vientiane, Lao PDR.

P. Grard is with CIRAD, UMR AMAP, Montpellier, F-34000, France.