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ZooKey[1]

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ABSTRACT: ZooKey. This paper presents a software for developing taxonomic keys. *ZooKey* can be divided in two modules: *ZooKey Developer and ZooKey Viewer*. The first module is made by the one interested in developing a key, while the second, concerns the user. Texts, illustrations, graphics, tables and any other information about the group, like general biology, morphology, ecology, phylogeny can be inserted in *ZooKey Developer*. Furthermore, diagnoses, figures and maps can also be included. The program automatically generates the electronic version that can be used through *ZooKey Viewer*.

Key Words: Electronic taxonomic key, zoology, software, ZooKey.

Generally speaking, the use of taxonomic keys for fauna identification requires specialized knowledge, since they consist of specific terms which accounts for the morphology of each group and are seldom accompanied by illustrations.

Aiming to make taxonomic keys more accessible and practical, a software has been developed which includes not only the characteristics which are necessary for identification but also important information about the taxonomic group in question.

Zookey is made up of two independent modules: *Zookey Developer*, which is used by the author of the key, and *Zookey Viewer*, which is used by the viewers who are interested in the identification.

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The *Zookey Developer* module allows the insertion of texts, illustrations, graphs, or tables which provide information about the general biology, morphology, anatomy, philogeny or any other kind of information pertinent to the group. Following, it is possible to insert diagnoses, illustrations and bibliographic references for each sub-group which is part of the key. To complete the information, one can include maps of the geographic distribution and data of physical and political geography of the places where the groups occur. Having all of this information, the items of the key can be included. This is a simple process in which the author of the key enters both the items and the illustrations for the terms mentioned in each item. Once the data are inserted the program automatically generates an electronic version which is ready to be distributed and used. The program allows the author to keep a record of the users' / institutions' e-mail addresses and he/she can send them the keys via Internet every time the latter are updated. This distribution can also be done through diskettes or CD's. In order to use the electronic keys, it is enough for the user to install the *Zookey Viewer* module. To guarantee their integrity in the electronic keys, the viewers are not allowed to make any changes in the data.

These electronic keys can be made for any taxonomic category, and they will speed up the process of identification. Apart from this, they offer further applications, such as in teaching activities, museums, research institutions or enterprises which carry out studies on environmental impact (EIA-RIMA = Estudos de Impacto Ambiental/Relatório de Impacto Ambiental).

For the development of the electronic key the only thing required from the researchers/specialists is that they gather all the material related to the group being studied.

Information about the software can be obtained on the Internet: http://www3.ufrgs.br/zookey

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