



The “Phylogen” Software, a precious tool to teach phylogenetics

Dandrey Guillaume
France (gdandrey@free.fr)

Teaching the natural science in secondary french schools aims at giving a coherent and understandable image of the visible duality unity / variety of the living world by introducing biodiversity, evolution and phylogenesis in curriculums.

The “Phylogen” software supplies a data bank and tools which allow the teacher to propose a wide range of educational activities:

- to establish classifications embedding the biodiversity evolutionary history,
- to understand the link between phylogenetic classification and cladogram (monophyletic taxonomic grouping , all organisms living or extinct and the single common ancestor they are believed to have descended from)
- to realize observations of anatomical structures necessary for the understanding of the homology concept,
- to present and to use the principles of the cladist method (parcimony) and the distance methods (phenetics) to build phylogenetic trees

The steps of learning the classifications and phylogenetics will be widely facilitated. A few examples for using this tool in classroom will be illustrated.