

Two identification tools applied on Mascarene's corals genera (Xper²) and species (IKBS)

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Abstract — For future biodiversity studies relying on species identification, environmental officers and researchers will only be left with monographic descriptions and collections in museums. This is why a knowledge base on the zooxanthellate scleractinian corals of the Mascarene Archipelago is being developed. This project offers results for both biologists/taxonomists and students or MPA-teams. Two online computer-based applications permit to identify genera and species. The first identification tool, called Xper², was developed by LIS (Informatic and Systematics Laboratory) in Paris, and is used for identifications to genera. The second tool, named IKBS (Iterative Knowledge Base System), was developed by IREMIA (Institute for Research in Applied Mathematics and Computer Science) in La Réunion, and is used for identifications from families to species. The tools presently work for *Astrocoeniidae*, *Pocilloporidae*, *Acroporidae* (only *Acropora* + *Isopora*), *Psammocoridae*, *Siderastreidae* (owns *Psammocoridae* as genera), *Fungiidae*, *Poritidae*, *Faviidae Faviinae*, *Faviidae Montastreinae*, *Mussidae*. We plan to start a new phase to add the last families, fully translate the web site in English and extend the Xper² identification to all the western Indian Ocean genera.

Index Terms — identification tool, IKBS, Mascarene archipelago, scleractinian corals, Xper².



ACKNOWLEDGEMENT

This work was supported in most part by the EU (FEDER), the French Ministry of National Education, Advanced Instruction and Research, and the Réunion regional council. Web site: <http://coraux.univ-reunion.fr/>

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