

# 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 the reason 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/divers/MPA-teams.

Two online computer-based applications offers the ability to identify genera and species. The first identification tool, called Xper<sup>2</sup> and developed by the LIS (Informatic and Systematics Laboratory) in Paris, is used for the identifications from the order to the genera. The second identification tool, named IKBS (Iterative Knowledge Base System) and developed by the IREMIA (Institute for Research in Applied Mathematics and Computer Science) in La Réunion, is used for the identifications from families to species. We have done the work for *Astrocoeniidae*, *Pocilloporidae*, *Acroporidae* (only *Acropora* + *Isopora*), *Psammocoridae*, *Siderastreaeidae* (owns *Psammocoridae* as a genera), *Fungiidae*, *Poritidae*, *Faviidae* *Faviinae*, *Faviidae* *Montastreinae*, *Mussidae*.

We have planed to start a new phase (fourth) of the project to add the last families, fully translate the web site in english and extend the Xper<sup>2</sup> 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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