

ecoBalade: Towards a workflow for Citizen Science Nature Trails

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Abstract — In the context of Citizen Science, where potential users may not be familiar with traditional keys and criteria, it seems necessary to provide a simplified interface in order to guide the users through the complexity of natural biodiversity.

Tacit knowledge [1] necessary for citizen science projects; is well known to be difficult to transfer to another person by means of writing it down or verbalizing it. The ecoBalade solves that constraint by putting the user in a problem solving situation in the context of determination, observation, and recording of field data.

In order to be successful the workflow must include three stages; a filter of the potential taxa by an expert naturalist, support throughout the first identification process and a finally visualization of the field observations by the subject. In a typical ecoBalade scenario, an expert naturalist will survey the potential species beforehand, and will generate a list of potential taxa criteria and pictures. This is then formalized in a XML semantic structure used by a PDA software Pocket eReleve [2] to guide the users throughout the identification process.

This concept has been successfully tested on the field in Saint Mandrier with approximately twenty novice users and three PDAs, it has generated in the course of two hours 32 observations [3]. The experience will be generalized to other locations in the months to come.

Index Terms — citizen science, education, biodiversity, XML standard, mobile solutions, identification, survey.



REFERENCES

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