

Communicating biodiversity with grasshoppers and crickets

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Abstract

The loss of biodiversity due to human activities is nowadays one of the main environmental problems. In order to address this problem and inspire actions to promote biodiversity during the next decade it is essential to increase public understanding of the importance of biological diversity and of its key role in the proper functioning of ecosystems and the provision of goods and services to society.
As such, **this** project is being developed aiming to contribute to the awareness of the value of biodiversity and to the steps that can be taken for its conservation and sustainable use, consistent with Goal 1 of the Strategic Plan for Biodiversity 2011-2020.
This project aims to introduce students, of different education levels, in the use of identification keys of organisms (in this case grasshoppers and crickets), as a tool for **learning and** strengthening positive attitudes and perceptions towards biodiversity.
A collection of crickets and grasshoppers preserved in resin and an identification key in multimedia format will be set up and made available to the students and teachers involved **in it**. With this material the students can experience the process of biological identification, making it a participative and attractive learning activity.

The methodologies that are being undertaken and some preliminary results of the first year works will be presented.

STATEMENTS

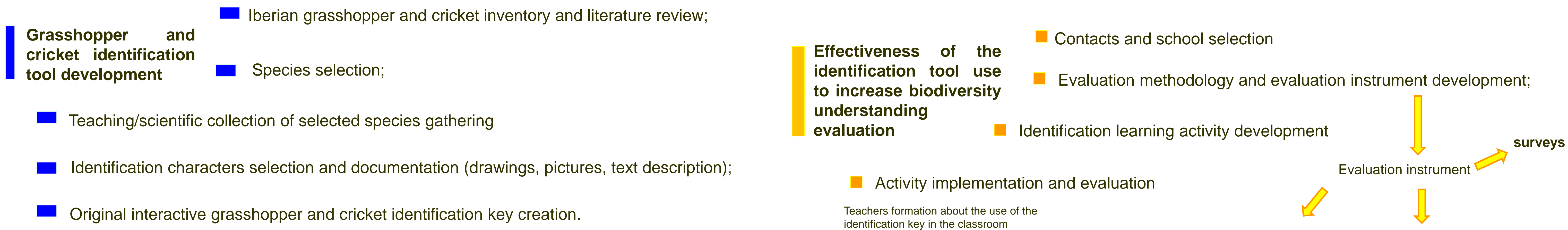
- *Biological identification is the basis of knowledge and comprehension of biodiversity* → *taxonomy education is indispensable for learning about biodiversity;*
 - *To name - **to identify** - a species* → *biology ecology conservation status uses benefits to society*
 - *Practical organism identification activities have almost been totally excluded from school curricula and taxonomy and systematics are seen as hermetic and terrifying subjects*
 - *Students must play an active role on taxonomy and biodiversity learning*
- "Knowing systematics is "doing" systematics. Students discover or create knowledge by engaging in activities." Crisi, 1993

QUESTIONS

- ❖ Can the knowledge of the diversity of crickets and grasshoppers in the Iberian Peninsula help to increase awareness of insects diversity, at the Iberian and European level?
- ❖ To what extent activities including identification of organisms in the school curricula can help increase the level of understanding on biodiversity?
- ❖ Can the students participation in organism identification activities increase their interest in biodiversity conservation and taxonomy?



TASKS AND METHODOLOGY



PRELIMINARY RESULTS

- 50 selected grasshopper and cricket species;
- ± 25 species with illustrative pictures in their natural habitat (fig. 2)
- Identification characters selection and illustrative pictures (fig. 3)
- Dried specimens reference collection of approximately a quarter of the selected species (fig. 4)
- Species file compilation (fig. 5)



Figure 2 – Illustrative pictures of 12 common grasshopper and cricket species in their natural habitat. Photos: Albano Soares.



Figure 3 – Example of identification characters pictures which will be used to illustrate the key . (MNCN Collection)



Figure 4 – *Oedipoda caerulescens* dried specimen



Figure 5 – Species file information example: *Anacridium aegyptium*, *Oedipoda caerulescens*, *Gryllus campestris*, *Tettigonia viridissima*. **Species** information about biology, distribution, phenology and other curiosities is presented.

Identification tool evaluation and activity design

Contacts and school selection

Several teachers in Spain have agreed to participate in this project after being contacted by email - 12 classes in total of different levels and corresponding to both rural and urban situations

Preliminary survey design

The survey design is being conducted and tested with teachers and students

Acknowledgements

To Sonia Ferreira (CIBIO) for bibliography and scientific support about portuguese Orthoptera fauna, Vicenta Llorente (MNCN) and Mercedes Paris (MNCN) for facilitating the access to the orthoptera collection of the Museo Nacional de Ciencias Naturales (MNCN), Madrid and Albano Soares for helping on field work and pictures. Eva Monteiro is supported by a PhD fellow from the Portuguese Foundation for Science and Technology (ref. SFRH/BD/73197/2010).