How to go beyond the collection of data in citizen science projects? Opening the field of analysis and interpretation to citizens

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Abstract

Over the last decade, citizen science has experienced an unprecedented expansion into a large number of disciplines, due to increased public participation, the development of a variety of digital applications, and the creation of new and innovative interactions between science and society. In the fields of biodiversity and the environment, the role of citizens is often limited to data collection. The objective of this study was to investigate existing programs employing recent innovations that involve members of the public in the analysis, interpretation and formulation of new questions using collected data in order to draw lessons for the future. In the analysis, 30 case studies were examined, 10 of which were particularly detailed, to determine the different types of citizen involvement, the factors that contributed to this involvement, and the types of tools used. This resulted in a typology of citizen science projects categorized by their ability to involve participants in data analysis and interpretation. The study concludes with recommendations for coordinators and project managers of citizen science programs.

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