Using citizen science to generate foundational biodiversity information

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IBSG13053118389

Knowledge of South African mammal distribution patterns is based largely on historical records and unverified anecdotes. Thus the effectiveness of mammal conservation efforts in this country is largely reliant on updating the ecological records to accurately reflect mammal distribution patterns in the 21st Century. To this end, the primary aim of MammalMAP – an initiative jointly championed by the Animal Demography Unit and the Mammal Research Institute – is to update the distribution records for all of South Africa's mammal species for improved wildlife management and conservation efforts. This year, MammalMAP has partnered with the Endangered Wildlife Trust and the South African National Biodiversity Institute to revise the Red Data List for South African mammals. Within this process, MammalMAP is serving as the main conduit for the inclusion of mammal distribution records from citizen scientists, a demographic group that offers incredible potential for generating foundational biodiversity knowledge. Here we propose a strategy for encouraging the collection of mammal distribution records by citizen scientists across South Africa, and for consolidating these records into a centralised database. In addition to improving the Red List revision process, these primary data will provide multiple conservation benefits to a wide array of users across the full spectrum of the knowledge chain, from scientists to environmental authorities and database managers. Furthermore, this process will provide a platform for educating the public of South Africa about the biodiversity and conservation challenges that we face in this country.