



citizen science

PETER RYAN

The Animal Demography Unit (ADU) is a catalyst that enables citizens to be scientists – citizen scientists. The ADU is a catalyst triggering change in both biodiversity and citizen spaces.

In particular, the Unit's various atlas projects have changed the biodiversity landscape in southern Africa. Take birds, for example. The distributions of the region's birds are now more precisely known and this was achieved through the two bird atlas projects. For both SABAP₁ and SABAP₂, BirdLife South Africa was partner. For SABAP₂, the South African National Biodiversity Institute (SANBI) is another partner.

If you look at the distribution maps in any of the field guides published prior to 1997, the year in which *The Atlas of Southern African Birds* first appeared, and compare them with those in *The Atlas* you will find that almost all of the guide book maps were deficient.

The first maps of bird distribution appeared in the second edition of *Roberts Birds of South Africa*, published in 1957. Prior to that, distributions were described in words! Geoff McLachlan and Richard Liveridge, the authors of that edition, had the humility to state of their maps: 'The small distribution maps are intended to show approximate distributions of a species at a

glance. Unfortunately, our present knowledge of distribution is so meagre that the maps will probably reflect many inadequacies and errors.' In spite of this, these maps largely ruled supreme for 40 years.

What made the difference? It was not the ADU that made the difference, but the citizen scientists who did the actual data collection. In their thousands, they assembled the checklists for grid cells on which the first bird atlas was based, providing the first data-driven maps. The ADU was simply the catalyst, assembling and curating the data.

Seven million records of bird distribution were collected for SABAP₁, the overwhelming majority by citizen scientists. SABAP₂, dependent on citizen scientists to an even greater extent than SABAP₁, has generated a database exceeding six million records and in a year it will overtake the SABAP₁ database in size.

The astonishing thing about SABAP₂ is that it has revealed that bird distributions are on the move to a degree that no one suspected when the project started. We are grappling with the implications of these changes for bird conservation, but the impact of the information collected by the citizen scientists is going to be enormous.

The effect on citizen scientists of being involved in data collection is also huge.

CITIZEN SCIENCE WEEK

The Animal Demography Unit is celebrating a Citizen Science Week from Saturday, 20 September to Sunday, 28 September 2014. We encourage birders to make a special effort to tackle projects as they are able, and to recruit and mentor new citizen scientists.

The Cape Town ADU Citizen Science Day will be held on Saturday, 20 September, at Intaka Island, Century City, starting at 09h00, and we hope that you will be able to join us. To facilitate planning, please register via <http://adu.org.za>

Atlasing transforms a superficial birder into a deep birder. It revolutionises the way a birder looks at landscapes and habitats, and sharpens the focus. Atlasers who regularly make checklists in their grid cell are sensitised to the subtle changes in biodiversity that are constantly taking place. They become ambassadors for biodiversity.

Each data point the ADU's citizen scientists collect is a piece in the jigsaw puzzle of biodiversity. The ADU's mission is to fit together all the puzzle pieces, so that we can map South Africa's biodiversity through time. We turn the myriad bits of raw data into the kind of information on which conservation decisions can be based. As a member of the public, you no longer need to be an 'activist' to contribute to conservation, you can be a citizen scientist, contributing your pieces to the jigsaw.

