SACNASP
South African Council for Natural Scientific Professions
Integrity in science

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Statement on Citizen Science

The use of Citizen Science as a mechanism for involving the general public in scientific activities has been defined in the following way by the US government: "In citizen science, the public participates voluntarily in the scientific process, addressing real-world problems in ways that may include formulating research questions, conducting scientific experiments, collecting and analyzing data, interpreting results, making new discoveries, developing technologies and applications, and solving complex problems. In crowdsourcing, organizations submit an open call for voluntary assistance from a large group of individuals for online, distributed problem solving."

As technology has advanced, the study of scientific questions has become increasingly specialised both in terms of the equipment used and the expertise of the individuals involved. This has resulted in a disjunction between professional scientists and the general public. There is now a growing trend to involve the general public in the collection and collation of scientific data that can be used professionally.

Members of the public with smart phones or other devices provide extra eyes and ears on the ground that can add significantly to the collection of data in certain scientific disciplines.. Technology allows lay people to, for example, take GPS referenced photographs of observations they make and submit these to, usually online, databases where the information can be used by scientists and incorporated into existing sources of data. This opens up possibilities in data collection and collation that were simply not possible before these technologies became available.

In addition to the valuable data this collects, encouraging participation in activities of this kind builds awareness of and knowledge about science. Members of the public of all ages can cultivate an interest in anything from birds to butterflies, from rocks to galaxies, and in so doing learn more about the natural sciences and participate in discovery of new knowledge. When observations are uploaded, the use made of this material by experts is shared with the people submitting the observations and hence they enhance their knowledge. This is a great way to expose youngsters

to potential careers in the natural sciences. Hence, citizen science can make a meaningful contribution to science education.

Whilst those participating in Citizen Science projects may not meet the educational or experiential requirements for SACNASP registration, SACNASP recognises their valuable contribution to scientific studies and to the public understanding of science. As their work is usually performed as part of larger scientific projects that are managed and guided by professionals, these lay scientists are working under the supervision and control of individuals who should be registered natural scientists and thus this work can be supervised via these persons.

SACNASP therefore embraces and encourages citizen science initiatives and the valuable contributions they make to knowledge generation and the development of the public understanding of science.