

South Africa has a rich and diverse wildlife. Although wildlife can be used to make money, it also needs to be protected so that future generations can benefit from it. If we don't look after it, some plants and animals could become extinct and be lost forever. Who can help us understand how different plants and animals live together and survive?

Who can help us manage and protect our diverse wildlife?

The Conservation Geneticist!

Meet Paulette Bloomer,
an Associate Professor in the
Department of Genetics of the
University of Pretoria
**BSc (Zoology and Microbiology),
BSc Hons (Zoology),
PhD (Zoology)**



... the biggest challenge of the job:

"I am not only a conservationist, I also support sustainable development. Balancing all the issues is not simple."

... career satisfaction:

"Contributing in a small way to the understanding and protection of South Africa's rich biodiversity for future generations."

... a common misconception:

"That using biotechnology in conservation is about 'bringing back' species."



What does Paulette do?

Paulette studies species of animals which are in danger of becoming extinct and finds out why they only live in certain areas and how they are genetically related to one another. For example, a type of mole called "Juliana's Golden Mole" is almost extinct and is only found in small numbers at three different places in South Africa. Paulette and her colleagues in the Zoology department are finding out why only a few moles are left and what has caused this (nature or man). She will also see if the three populations (groups) of moles at the three different locations are related. One of the populations may be completely lost because of urban development – and Paulette will investigate to see what could happen if this group of moles is lost.

What do I need to be a conservation geneticist?

Characteristics: Passion for the environment, good communication skills and ability to work in multi-disciplinary teams

Important school subjects:

Biology, Mathematics, Physical Science

Qualifications:

BSc degree with Zoology, Botany, Genetics or Microbiology

BSc – Molecular and Cellular Biology/Conservation Ecology/Natural and Environmental Science/Biotechnology

Where can I find a job as a conservation geneticist?

Research institutions, universities, National Zoological Gardens, diagnostic laboratories

Related careers:

Careers in biology eg Zoologist, Botanist, Microbiologist, Ecologist, Phylogeneticist, Botanist, Conservation Biologist; Molecular Geneticist, Molecular Taxonomist, Museum Scientist