

HOW MANY LIONS ARE ENOUGH?

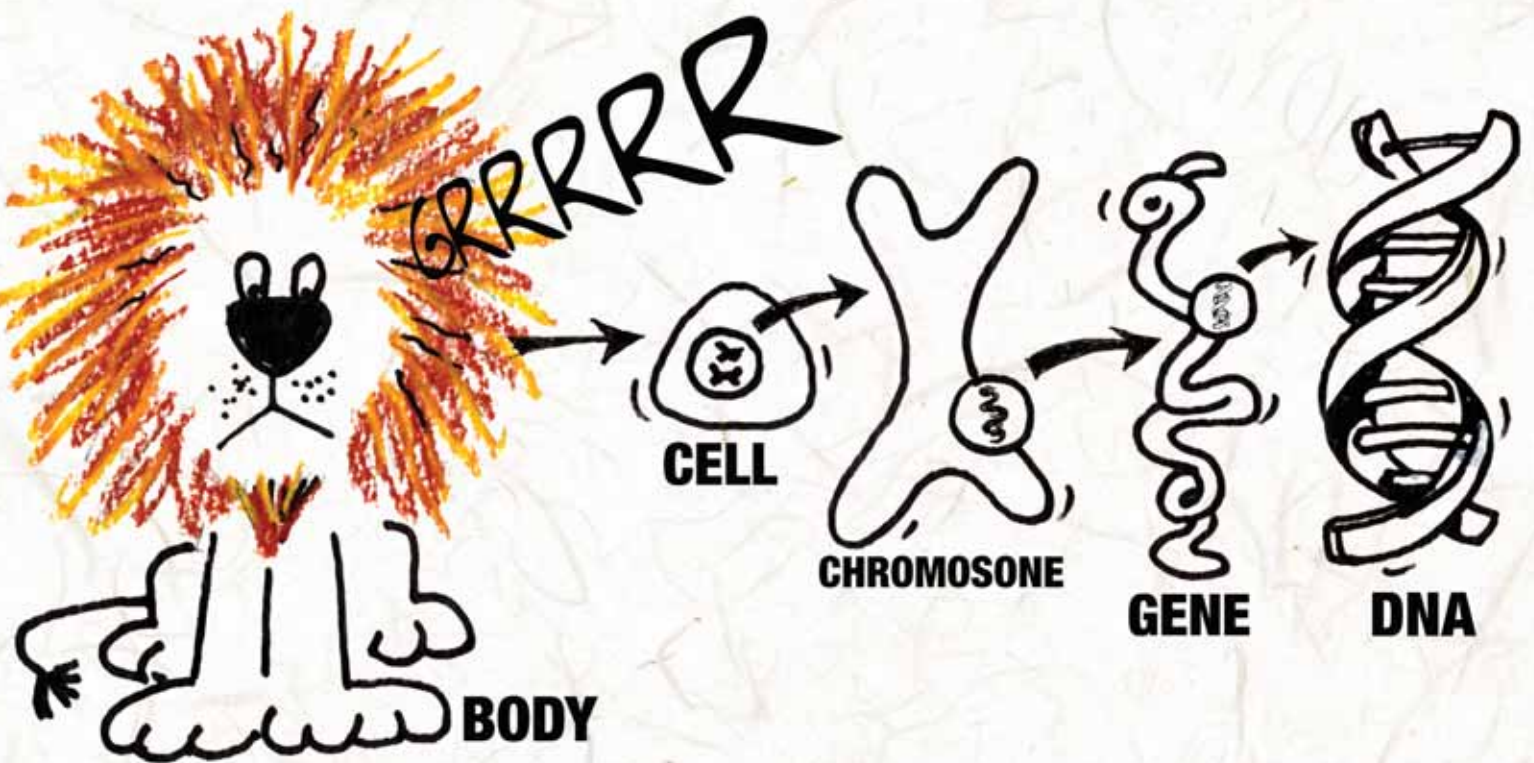
Why bother having lots of lions? Why not just have four lions in a cage? People could go and admire the king of beasts and everyone would be safe and the lions' habitat could be used for human purposes! The reason is that if only four lions survive, as they breed, their offspring may get weaker and weaker. Four lions are not enough to ensure that there will still be lions in fifty or one hundred years time. For that, you need a whole POPULATION of animals. This is because, as we humans know, breeding with members of your own family is a bad idea. It is not only wrong morally and spiritually, but also biologically. When a person has a disease or a weakness inherited via their GENES, it is more likely that a member of their own family will share this weakness than an unrelated person.

Genes are parcels of information that describe exactly who and what you are – whether you are a human, lion, cabbage, beetle, wasp, or mongoose, whether you have a long nose or a short nose, big ears or small ears, curly or straight hair. All animals carry their genes – their construction instructions - in every tiny cell of their body. When animals reproduce, genes from each parent combine to create a unique individual. As the new animal grows, its body follows the instructions in the genes.

Genes are either dominant or recessive. For example, the gene for blue eyes is recessive, and the gene for brown eyes is dominant. If one parent has blue eyes, and the other has brown, the baby nearly always has brown eyes because that is the dominant gene. It all depends which genes from the parents came together to produce that baby and whether the brown-eyed parent had any blue-eyed ancestors.

Some recessive genes carry unfortunate diseases. Sickle cell anaemia and cystic fibrosis are two examples. These only show up if both of the parents carry that particular recessive gene and the baby receives both of them. If two closely related individuals breed, it is more likely that recessive genes will meet. The more animals in a population, the stronger and more varied the 'gene pool', and the less likely two disease-carrying recessive genes are to meet. The offspring of only four lions would quickly begin to show signs of 'in-breeding depression'. Of course, there are many other reasons to keep animals in their habitats, their natural homes, living wild lives. Many of these will become clear throughout this book.

The next section will introduce people who are finding ways to live alongside some of Africa's most troublesome wildlife.



Genes are carried in every cell of the body