



Conservation Corner

Callum Clark is a third year Nature Conservation student from Nelson Mandela University. He is currently interning at the Wolwekraal Nature Reserve in order to complete the work-integrated learning component of his Diploma. He is interested in how conservation and sustainability can help further social justice and enrich people's lives.

Welcome to the Tortoise Capital of the World

The Cape is a well-renowned global biodiversity hotspot. This is largely due to the incredible array of plants found here. Few places in the world can boast such a rich diversity of plant species in such a small area. However, there is another low-key brag that most *Kaapies* aren't even aware of: that we're unequivocally the tortoise capital of the world! South Africa hosts 13 species of tortoise, making it the most species-rich tortoise region on the planet. Meaning that close to a quarter of all known tortoise species occur in the region. In the Karoo alone, nine species of tortoise have been recorded. Six of those are endemic - meaning they don't occur naturally anywhere else. Tortoises, and the threats they currently face, are poorly understood.

You can't talk about tortoises without addressing their most characteristic feature: the shell. A tortoise's shell is a highly complex structure that encases the entire animal. It is comprised of over 70 fused bones covered by a horny layer of plates called scutes. When a tortoise feels threatened it will retract its head and legs within the relative safety of its shell. You may notice when encountering a tortoise that it will loudly hiss when you get too close. This is because in order for a tortoise to withdraw itself entirely into its shell, it first has to completely empty its lungs of air. And although tortoises can tolerate much lower oxygen levels in their bloodstream, it will eventually have to come out again to get another breath of air.

While a tortoise's shell provides a formidable barrier against would be predators, it does come at the price of mobility.



*The beautiful karoo tent tortoise can be spotted in Prince Albert's Wolwekraal Nature Reserve.
Photo: Tyrone Ping.*

Which makes it all the more vulnerable in these fast-paced times. The main threat faced by tortoises is habitat loss and the illegal pet industry. And I get it. I would love nothing more than to have a pet tortoise! They're fascinating and adorable creatures which seem like low maintenance. However, many local tortoise species are specially adapted to the vegetation type in which they occur and removing them from their natural habitat spells almost certain death by starvation for the poor creature. Furthermore, it is strictly illegal in South Africa to keep or trade in any tortoises without a valid permit from your local conservation authority.

The Karoo tent tortoise, for instance, is becoming increasingly rare due to habitat loss and illegal collecting for the pet trade. However due to its specific diet of certain Karoo plants this tortoise rarely survives for long in captivity.

Tortoises can also suffer due to well-meaning acts of kindness. As a rule, one should avoid picking up a tortoise and moving it. When picked up a tortoise will generally urinate as a defence mechanism. While unpleasant for the carrier, this is potentially deadly for the tortoise who may dehydrate if it doesn't find a source of water very soon afterwards.

Often people worry that a tortoise is in danger of drowning. And by all means give it a helping hand if that is the case. But it is important to remember that tortoises prefer to partially submerge themselves in water when drinking and are excellent swimmers. Therefore, unless the tortoise is obviously stuck, you should leave it be. You may also be tempted in helping a tortoise cross the road. If it is a busy road this could be the right call but remember it will almost certainly pee on you and it will attempt another crossing if you return it to the same side of the road that it was coming from.

Tortoises are an extremely ancient group of animals. They first appeared in the fossil record well over 200 million years ago. So, while it may seem a little pathetic to watch these curious reptiles heave their bulky bodies across the landscape, keep in mind that they've managed perfectly fine without you so far. ■