

Invasive grass slowly suffocating local livelihoods

By Dr Cindé Greyling

Dr Anthony Mapaura from the UFS Afromontane Research Unit is a conservation biologist and plant ecologist, and Lumko Mboyi is a professional environmental scientist. Together, they signed up for the fight of their lives – to help manage the Mexican feathergrass of the Eastern Cape. With their more than 30 years of combined experience and expertise, they are the best combo for the job.

Nassella tenuissima, also commonly known as Mexican feathergrass, is native to South America and the southwestern USA. In South Africa, it has naturalised and become invasive in the montane areas of the Eastern Cape, especially around the Barkly East and Clifford areas. When Mexican feathergrass invades an area, it outcompetes and displaces native species, forming dense monoculture stands. Mboyi’s current research is the first detailed assessment of this species’ actual distribution and its impact on the native biodiversity of the region.

Reducing carrying capacity of rangelands

“Since this grass is largely unpalatable and indigestible for livestock due to its high fibre content, heavy infestations reduce the carrying capacity of rangelands. Their large biomass poses a serious risk of wildfires. Since they remain green well into the dry season, they disrupt the normal ecosystem dynamics, leading to biodiversity loss, reduced ecosystem services, and low

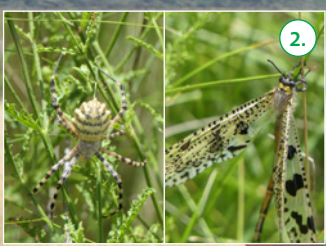
productivity,” Mboyi explains. “The sharp, needle-like awns can harm livestock, particularly the eyes, skins, mouths, and digestive tracts, as well as reduce the quality of wool. The worst part is that invasions are extremely difficult and expensive to control.”

Biodiversity loss is a critical issue affecting everyone, Dr Mapaura says, hence we all have a duty to act. “Smuggling plants and participating in the trade of rare and endangered plants or animals and their products should be stopped. Everyone should adopt sustainable practices and call for stronger environmental control.” Since the loss of natural biodiversity will affect us all, Dr Mapaura encourages education and research and consciously acting more responsibly towards the environment.

Catastrophic consequences for agriculture

“Invasive plant species pose significant threats to natural habitats and ecosystems. Specifically, the invasion of the *Nassella* grass genus may have catastrophic consequences for agriculture in the region, resulting in less productivity, more erosion, and altered water availability.”

But all is not lost, Dr Mapaura states. “There are several concerted efforts committed to the conservation and sustainable use of biodiversity throughout the world. I believe there is a lot of hope for a sustainable future, even though challenges remain. It’s not too late to act, but we need to act urgently if we are to win. We are at a point in human history where our actions need to be in harmony with nature, because we are part of nature.”



1. Farmers tirelessly strive to save their farms from the intrusion of *Nassella*.
2. Important pollinators thriving amid the indigenous vegetation.
3. Dr Anthony Mapaura in the field taking digital specimens.
4. Lumko Mboyi standing amid a sea of *Nassella* in the field, highlighting the scale of the invasion.