

What does **INVASIVE** really mean?

By Ian Cox

FOSAF's court application is underway. The Minister of Environmental Affairs has filed a notice of opposition but, not surprisingly given the untimely and tragic death of Minister Molewa, has failed to meet the deadline for filing an opposing affidavit. FOSAF's attorneys have written to the State Attorney pointing out to Minister Hanekom who replaced Molewa that he is out of time, and enquiring how much more time he requires to respond.

I want to look beyond that application and the vital processes that FOSAF is defending and concentrate instead on what the term "invasive species" means and why the term is causing so much controversy.

In doing so I ask whether DEA can legitimately claim that trout must be listed as invasive to protect the trout fishery from bass. Will declaring trout as invasive enable the trout fishery and trout-based aquaculture to thrive in areas where trout presently occur, as DEA now claims? Is DEA correct when it says that listing trout as invasive will protect and even promote the growth of the trout value chain? If these statements are true, then what does invasive mean?

DEA's assurances that listing trout as invasive will be beneficial to trout and the associated value chain is patently untrue. That this is so is obvious. Species are listed as invasive in law so that they can be eradicated or, if that is not possible, their propagation and spread can be prevented. This is the case all over the world. DEA's claims to the contrary have all the candour of those claims often heard back at the height of apartheid, that the government's separate development policies were necessary to protect black people from white competition. DEA's claims are irreconcilable with its other assertion that it would eradicate trout from South Africa if this were possible.

So what does it mean to be invasive? That is a difficult question to answer because opinions vary depending on who you talk to.

There are a number of materially different definitions in formal use. Thus, for example, the definition of invasive species adopted by the Invasive Species Specialist Group (ISSG) is very different to that used in the United Nations Convention on Biological Diversity ("CBD") which, in turn, is different to the definition used in European or South African Law.

Opinions also differ markedly on how you apply these definitions. This often depends on whether you see people as separate to nature (i.e. a nature-first or biocentric perspective) or whether you see people as part of nature (i.e. a people-first or anthropocentric perspective). The IUCN which is biocentric in its outlook (the ISSG, fundamentally so) has a very different approach to applying these definitions than the European Union whose outlook is largely anthropocentric.

Then you must ask if you believe that every species and all geographic spaces within species have a place where they belong naturally and outside of which they must be considered alien. This is called biotic nativism.

Invasion ecologists, whose perspectives are biotic nativist and generally biocentric, differ materially from the broader community of ecologists who do not regard human beings as alien to nature. The biotic nativist and biocentric perspective of the ISSG, for example, is materially different from the anthropocentric approach of the influential Stockholm Resilience Centre, notwithstanding the shared concern both groups have about the adverse effects human activities are having on the planet.

South Africa has a strong claim to be the birthplace of invasion ecology. South African invasion ecologists tend to be fundamentally biotic nativist in their outlook. This point of view is sometimes called environmental purism. It should

come as no surprise, therefore, that South African environmental scientists adopt a broad biocentric approach to what is meant by invasive, or that this perspective is what is taught in South African universities.

South African purist thinking around environmental management is still very influential in the development of invasion ecology thinking worldwide. South African environmental scientists are strongly represented, for example, on the ISSG. But we are also the home of one of the most anthropocentric human rights-based constitutions in the world.

South African invasion ecologists believe an alien species automatically threatens native species if it can establish itself in the wild, and must therefore be listed as invasive. However, the National Environmental Management Biodiversity Act (NEMBA) says that these threats must be demonstrable rather than assumed and that they must also cause or be reasonably likely to cause harm to the economy, human health or what European law calls ecosystem services. Ecosystem services is a term which describes how nature contributes to human health and wellbeing. Clean air and water are both ecosystem services, as are the ecological conditions that enable us to grow crops raise livestock and live sustainably from one generation to the next. This ecosystem services approach is in line with South Africans' constitutional right to an environment which is not harmful to South Africans' health and wellbeing.

A clash between these two opposing value systems is inevitable.

South Africa's Constitution recognises the inevitability of these conflicts. South African law thus provides for processes that allow these conflicts to be reconciled within the framework of an anthropocentric human rights-based system of law. FOSAF is in court because DEA is ignoring those processes.

I think it is becoming increasingly obvious that DEA is ignoring those processes in pursuit of its goal of gaining permitting control over South Africa's biological resources rather than giving effect to NEMBA and its definition of an invasive species. The law is being abused to achieve control rather than to advance biodiversity conservation.

DEA cannot follow the prescribed process because this will make this apparent malfeasance all too obvious. It is being supported politically because the desire of environmental officials to take control of biological resources walks hand in hand with a broader strategy of government taking control of all resources and access to economic opportunity.

The Minister tragically died in September, paradoxically of a disease caused by environmental neglect. I take no pleasure in saying this. Minister Molewa was a woman of outstanding qualities; sadly respect for the rule of law and the Constitution were not among them.

Tourism's Derek Hanekom is now the Acting Minister of Environmental Affairs. Time will tell whether he will take up where the late Minister Molewa left off. His reputation is that he is a stickler for proper process, so perhaps things will change for the better. I certainly hope so.

This all begs the question: Are trout invasive in terms of South African law? They are alien and have established themselves in the wild in South Africa, so according to invasion ecologists they must be invasive. But this is not the law.

Trout are not invasive as the term is defined in law. A species is only invasive in law if it is alien *and* its establishment in the wild amounts to an ecological threat which in turn harms ecosystem services. There is no evidence that trout pose an ecological threat in South Africa. Invasion ecologists try to conflate impact on an imagined state of pre-human pristinity with the requirement of a threat, but threat and imagined impact are not the same thing. There is a great deal of evidence that trout contribute positively to ecosystem services.

The idea that trout are invasive is based on the xenophobic idea that every species has a place where they belong naturally and outside of which they are alien. This thinking is the antithesis of the values and principles underpinning the Constitution.

This may explain why environmental authorities can't get the law right. If your perspective is naturally anti alien then you will automatically think the worst of any alien species like trout that can establish in the wild and therefore become naturalised. But you will also find that the legal principle of a nation united in its diversity in pursuit of laws that enable sustainable development and protect human dignity is incompatible with your beliefs. This incompatibility will make it difficult, if not impossible, to translate your prejudices into law.

It is a classic case of a clash between a culture of prejudice and police state rule on the one hand and inclusiveness and democratic law-based government on the other. So, it is not just about whether trout are invasive. The fundamental question that lies behind this is: What type of government do we want for South Africa? Do we go back to the discriminatory police state rule that existed before 1994 or do we build a nation based upon inclusiveness, democracy and the rule of law? 

