

Biodiversity: Society's behaviour must change, conservationists warn

An innovative grouping of scientists and practitioners have come together to advocate a fundamental shift in the way we view biodiversity.

In their paper, which has been published in the journal *Science*, they argue that unless people recognise the link between their consumption choices and biodiversity loss, the diversity of life on Earth will continue to decline. Dr Mike Rands, Director of the Cambridge Conservation Initiative and lead author of the paper, says: "Despite increasing worldwide conservation efforts, biodiversity continues to decline. If we are to make any kind of impact, it is critical that we begin to view biodiversity as a global public good which provides such benefits as clear air and fresh water, and that this view is integrated not just into policies but also into society and individuals' day-to-day decisions."

The conservationists, from conservation organisations as well as academia,

recognise that biodiversity loss is typically the result of unintended human actions and therefore raises unique difficulties. They state, "The impacts of a particular action are often distant in space and time. This makes effective regulation difficult, as no single body has jurisdiction over the world's biodiversity."

As part of the solution, the authors advocate managing biodiversity as a global public good. They argue that an appreciation of biodiversity as a global public good with economic and societal value, providing benefits that far outweigh the cost of conserving ecosystems, should be central to all policy-making that impacts on the environment. "The value of biodiversity must be made an integral element of social, economic, and political decision-making, as is starting to happen with carbon and climate change. Government, businesses and civil society all have critical roles in this transition."



San benefit from bio-prospecting license

Former Water and Environmental Affairs Minister Buyelwa Sonjica has presided over the ceremonial handover of the first bio-prospecting license to HGH Pharmaceuticals in Khwa Ttu, in the Western Cape.

The license grants the pharmaceutical company local and international research rights on cultivated plant material and extracts from *Sceletium tortuosum* (known locally as Kanna, Channa or Kougoed) and to commercialise the product for central nervous system conditions. The San peoples are acknowledged as the primary indigenous knowledge holders of certain

medicinal and other uses of *Sceletium*. As such the South African San Council, Paulshoek and Nourivier communities are the beneficiaries of the commercialisation of any potential products.

Sceletium has been used by nomadic pastoralists and hunter-gatherer communities as a mood altering substance for thousands of years. According to the National Environmental Management Biodiversity Act, no person may trade commercially in any indigenous biological resource from South Africa without a permit ensuring sustainable harvesting issued by the Minister.

South Africa's first protected environment declared

The first protected environment in South Africa has been declared.

This follows after MEC for Economic Development, Environment and Tourism for Mpumalanga, Jabu Mahlangu, signed the final document officially announcing that 23 000 ha of privately-owned farmland extending from Wakkerstroom to Luneberg in the high altitude grasslands of southern Mpumalanga is a protected environment. A protected environment is effectively one step below a national or provincial nature reserve, enjoying a high level of formal protection with major conservation gains.

Called the KwaMandlangampisi Protected Environment it is a critical water catchment area for South Africa that includes the headwaters of the Pongola River and the Assegai River, which feeds the Heyshope Dam and provides clean water for national power generation. Ranging from 1 400 m to 2 000 m above sea level, it spans threatened high altitude grasslands, wetlands and indigenous mistbelt forest, and is home to threatened and endemic plant, bird and animal species, including the Oribi and South Africa's three crane species (Wattled, Grey Crowned and Blue).

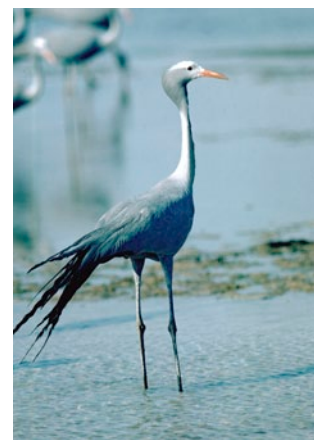
"This is the most important thing that has ever happened to conservation in this country," says fifth generation

Luneburg farmer, Horst Filter whose livestock farm lies within the Protected Environment. "The attention was always on game reserves and the Big Five and never on critical areas like the grasslands. I think it's very important that this whole initiative filters through to the rest of South Africa."

The World Wide Fund for Nature (WWF) and Nedbank's Green Trust has been a driving force behind the protection of this region and beyond. Recognising the critical water production role of the high-altitude grasslands between KwaZulu Natal, Mpumalanga and the Free State (which provide water to the whole of Gauteng, as well as to several of South Africa's major power stations) eight years ago, WWF/The Green Trust agreed to fund a project spanning 1,6-million ha in this region, called the Enkangala Grassland Project.

The KwaMandlangampisi Protected Environment is situated within the Enkangala Grassland Project area.

Source: WWF



African freshwater species in perilous state

A fifth of freshwater species in Africa are threatened with extinction, putting the livelihoods of millions of people at risk, a new study has found.

In the most comprehensive assessment of its kind, more than 5 000 African freshwater species were evaluated by 200 scientists over a five-year period for the IUCN Red List of Threatened Species, including all known freshwater fish, molluscs, crabs, dragonflies and

damsel flies, and selected families of aquatic plants. Some of the biggest threats to African freshwater species come from agriculture, water abstraction, dams and invasive alien species.

This study highlights the perilous state of our natural environment and will provide vital information for decision-makers as they plan to greatly expand the use of Africa's inland water resources, the authors say. The results

are particularly important for resource managers as, for the first time, species have been mapped to individual river basins.

"Freshwaters provide a home for a disproportionate level of the world's biodiversity. Although they cover just one percent of the planet's surface, freshwater ecosystems are actually home to around 7% of all species," says Jean Christophe Vié, Deputy Head of IUCN's Species Programme. "This latest IUCN Red List assessment clearly shows that lakes, rivers and wetlands haven't escaped the grasp of the current extinction crisis."

Even the loss of a single species can have a dramatic impact on livelihoods. In Lake Malawi, a group of fish, known as 'chambo' by locals, forms an extremely important source of food. Of these, *Oreochromis karongae*, an endangered species, has been hugely overfished, with an estimated 70% reduction in the population over the past ten years.

In Lake Victoria, a decline in water quality and the introduction of the Nile Perch (*Lates niloticus*) have caused a reduction in many native species over the past 30 years, threatening traditional fisheries. This IUCN Red List assessment studied 191 fish species in Lake Victoria and found that 45% are threatened or thought to be extinct.

Around the great lakes of Africa, fish provide the main source of protein and livelihoods for many of the continent's poorest people. The livelihoods of an estimated 7.5 million people in sub-Saharan Africa depend on inland fisheries. These new data will be invaluable in helping to safeguard these fisheries, freshwater supplies and the many other associated resources.

"Africa is home to an astonishing diverse range of freshwater species, many of which are found nowhere else on Earth" notes William Darwall, leader of the project and Manager of IUCN's Freshwater Biodiversity Unit. "If we don't

stem the loss of these species, not only will the richness of Africa's biodiversity be reduced forever, but millions of people will lose a key source of income, food and materials."

Priority areas of highly threatened and restricted range species can now be identified. For example, in the waters of the crater-lake Barombi Mbo, in Cameroon, 11 species of fish are highly threatened and live a precarious existence as deforestation increases the risk of lake 'burping', where large levels of carbon dioxide are released from deep within the lake, suffocating the fish. Without management intervention these species, some of which are important food sources, may be lost forever.

Other freshwater species, such as molluscs, dragonflies, crabs and aquatic plants also play vital roles in maintaining functioning wetlands and these should not be ignored. In the rapids of the lower reaches of the Congo River, 11 species of mollusc, found only within

a 100 km stretch of water, are highly threatened due to upstream pollution.

The findings of this assessment are also being published in a series of regional reports.

Source: IUCN



Call for Registration: WDM Specialists

The Water Demand Management (WDM) Programme is hosted by the Development Bank of Southern Africa (DBSA) and supported by the Swedish International Development Cooperation Agency (Sida).

The Programme is focused on building a WDM culture in the Southern African Development Community (SADC) region to ensure effective and sustainable use of water that contributes to the SADC goals of regional integration and poverty alleviation.

The WDM Programme invites all WDM specialists in the region to register with the Programme's WDM Specialist Database.

Download the Specialist CV template from the Programme website :

www.wdm-in-sadc.net or send an email to the Programme Implementation Unit (PIU) : **info@wdm-in-sadc.net** requesting the template.

The WDM Specialist Database will be accessible to all registered members on the website, as well as potential Clients.

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