

One of SA's most wonderful natural heritages under pressure



Table Mountain from the Waterfront

Photo: James Pryke

The Cape Peninsula, which is in conservation terms, a hotspot within a hotspot (the Cape Floristic Region), might be facing a dire biodiversity crisis, if all the warning signals are taken into account. To find out if this is true, a substantial grant was given to James Pryke, Ph.D student in the Department of Entomology, by the World Wide Fund (WWF) for Nature's Table Mountain Fund.

According to Pryke his study will ultimately be looking to determine the extent of invertebrate extinction on Table Mountain and how best to prevent it from happening.

"Several Cape Peninsula endemic invertebrate species, like various velvetworms, butterflies, dragonflies and damselflies have not been recorded for many decades. It is also of concern that invertebrate habitats on Table Mountain have been transformed through other impacts such as invasive alien trees or animals (such as the Argentine ant) and perhaps even by the thickening of the indigenous canopy cover due to fire restrictions," he explains.

There are various habitat types on Table Mountain, some are natural like the remaining patches of indigenous forests and fynbos, while others are exotic like the pine plantations found on the side of the mountain and the cultivated gardens found at its base. The project looks at whether these different habitat types have different biodiversity values.

Interestingly conservationists have previously found that when invasive alien trees are removed, some extremely rare species immediately respond with a population increase, indicating that management can be immensely beneficial.

For conservationists the extinction crisis-taking place on the Cape Peninsula is of major concern. The Cape Peninsula is a biotic jewel of great importance, not just in terms of intrinsic value, but also because it is a showcase of how to manage the conservation of high numbers of endemic species

in an urban environment.

Pryke's study will be done under the leadership of Prof. Michael Samways, chair of the Department of Entomology (Faculty of Agricultural and Forestry Sciences) who is not only a world-renowned Entomologist, but also considered an international specialist on the conservation of invertebrates. He was recently appointed on the board of the Xerces Society, which is considered to be the world's largest non-profitable organisation that is committed to the conservation of invertebrates and their environment.

According to the most important international invertebrates conservation committee (IUCSN/SSC), the need for the conservation of invertebrates has increased substantially in the last few years. This has come about through recognition that they are under threat as much as plants and vertebrates. Estimates suggests that possibly a quarter of insects alone may go extinct in the next three decades.

As well as there being concern for invertebrates in their own right, there is growing realization that invertebrates are part of the very fabric of ecosystems. They recycle nutrients, pollinate, eat and get eaten. Yet only one in twenty or so species are known to science. Most are undiscovered or forgotten, which means that there is a risk that many will be lost without us even knowing who they were.



James Pryke

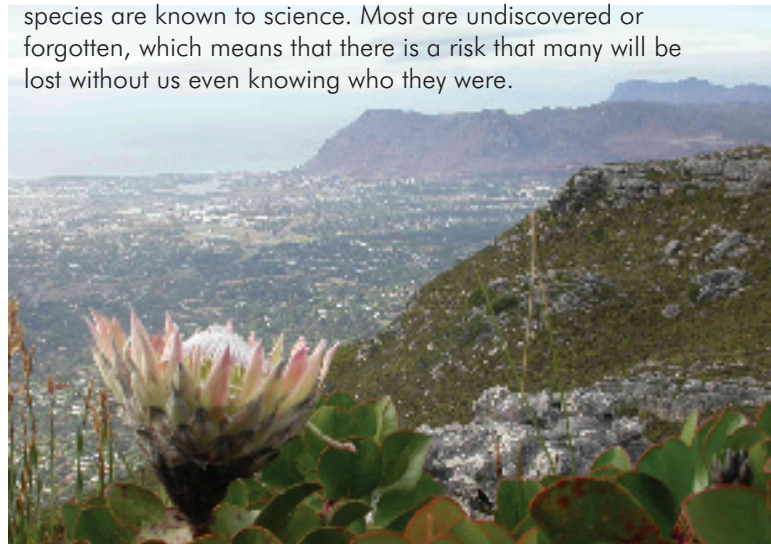


Table Mountain from the top

Photo: James Pryke

New era for Department of Forestry and Wood Science

The management of Stellenbosch University has granted almost R4,4 million – payable over a three-year period – for the repositioning of Forestry at Stellenbosch. This is over and above the usual sizeable amount that the budget allocates annually to this environment.

On 1 January 2005 the doors of

the new Department of Forest and Wood Sciences opened after the amalgamation of the Departments of Forestry and Wood Science.

Among the most important reasons for this amalgamation was the need to integrate all the expertise available along the value-adding chain of production

and processing, and to offer our clients a better service through a systems approach. This new department is thus positioned to provide a one-stop service to students as well as the plantation and processing industries, thereby acknowledging the need for close co-operation between fibre producers and fibre

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Nuwe wyndruifkultivar by US ontwikkel

Die nuwe witwyn-kultivar, Nouvelle, is by die US deur 'n eertydse hoof van die huidige Departement Wingerd en Wynkunde, prof Chris Orffer, ontwikkel deur Sèmillon en Crouchen blanc (ook bekend as SA Riesling) suksesvol te kruis.

Sedert sy aftrede in 1986 handhaaf prof Orffer steeds 'n aktiewe belangstelling in die Suid-Afrikaanse wynbedryf soos onder meer weerspieël word in sy posisie as erepresident van die Suid Afrikaanse Wingerd & Wynkondevereniging.

Nouvelle is 'n produk van 'n reeks konvensionele kruisings deur prof Orffer gedurende die periode 1958 – 1964. Na jare van wetenskaplik gefundeerde evaluasie is dit eers nou, meer as 40 jaar later, dat suksesvolle verbouing begin posvat en dat dit kommersieel as kultivarwyn beskikbaar gestel is.

Volgens prof Piet Goussard, dosent in Wingerdkunde aan die US, het prof Orffer talle wyndruifkruisings gemaak en is kultivarstatus aan ses daarvan verleen – in volgorde: Chenel, Weldra, Roobernet, Therona, Grachen en Nouvelle.

“Elkeen van hierdie eg Suid-Afrikaanse kruisings het 'n betekenisvolle plek in die kultivarspektrum van die wynbedryf ingeneem – 'n merkwaardige prestasie!”

Hy reken ook dat Nouvelle op grond van 'n prominente gras en groenrissie karakter, goeie bydraes as kultivarwyn behoort te maak, sowel as in versnitte met onder meer Sauvignon blanc, Sèmillon en SA Riesling.

Boland Kelder in die Paarl het onlangs die eerste bottels Nouvelle beskikbaar gestel.

Nuwe kloningstegniek meer geskik vir Afrika

'n Nuwe kloningstegniek wat by uitstek geskik is vir Afrika-toestande stel die Departement Veekundige Wetenskappe in staat om te help in die stryd om bedreigde wildspesies soos die siektevrye Kaapse Buffel, te bewaar. Stellenbosch is een van enkele instansies wat toegang het tot die selbank van bedreigde Afrika-spesies.

Me Gerna Herholdt, tegniese beamppte in dié departement, het die tegniek in Denemarke aangeleer tydens 'n kursus wat einde verlede jaar by die Deense Instituut vir Landbouwetenskappe aangebied is. Die tegniek wat HMC (Handmade Cloning) gedoop is, behels dat die selkern oordrag van somatiese- of liggaamselle met goedkoper toerusting op 'n effektiewe en betroubare manier per hand gedoen word.

“As navorsingsinstansie is dit belangrik dat ons op hoogte van die nuutste tegnieke bly en in noue kontak met ander leidende laboratoriums regoor die wêreld,” sê prof Chrisjan Cruywagen, voorsitter van die Departement Veekundige Wetenskappe.

Stellenbosch se Fakulteit Landbou- en Bosbouwetenskappe beoog om hierdie kloningstegniek in hul navorsing te gebruik, asook om dit in die Veekunde-studente se reproduksiekursus in te sluit. Prof Cruywagen beklemtoon dat die etiese kwessies rondom kloning net so 'n groot deel van die studente se kurrikulum uitmaak.



Gerna Herholdt in die laboratorium

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processors within the forestry industry.

The Department of Forest and Wood Sciences must be a role-player of such high calibre that reflects its core business (Research, Teaching and Service) and must become a knowledge partner of first choice because of its level of excellence. Therefore, world-class expertise is required. Recently, a process was initiated to appoint a team of specialists in key positions within the new Department.

Stellenbosch University takes very seriously its involvement with Forestry in South Africa – and indeed in Africa. Our strategic repositioning for this purpose is based on a well thought-through and visionary plan, and the plan's implementation has, in fact, already commenced.

In addition to the appointment of world-class specialists, the undergraduate curricula have already been drastically revised, and co-operation agreements

with a number of role-players have been concluded or are in the process of being concluded, including agreements with strong international universities. The long-awaited Wood and Fibre Institute has also been established on 1 January 2005.

■ Visit the Department's web page for more information www.sun.ac.za/forestry or phone Anita de Jongh at 021-808 3325.