

# REGIONAL NEWS

## KwaZulu-Natal - Region

### **Using cattle to achieve conservation objectives: some tentative steps in KZN**

*Alan Short, KZN Department of Agriculture and Environmental Affairs and  
Ian Rushworth, Ezemvelo KZN Wildlife*

Domestic livestock have traditionally been seen as being incompatible with protected area objectives. While in most cases there is good reason for this (including impacts on tourism, disease transfer from wild ungulates to domestic stock and *vice versa*, erosion, impacts on biodiversity and the difficulty of maintaining any grazing system in an area without internal fences), there is a growing realisation that cattle can, under specific conditions, play a role in achieving conservation objectives in certain conservation areas.

In some protected areas it is not possible to re-introduce the historical suite of bulk grazers, and cattle can be used to simulate the ecological effects of absent species such as buffalo and white rhino. With proper planning and management, cattle in sourveld areas can be used to create more of a patchy grass sward, which benefits certain species such as oribi that need both long (for protection) and short (for feeding) grass. Likewise, wattled cranes benefit from a certain amount of cattle grazing as cattle open up the wetland edges thus improving access to food plants and facilitating movement of young crane chicks.

Under the guidance of Ezemvelo KZN Wildlife's Ecological Advice Co-coordinator for the uKhahlamba (Drakensberg) Region (Ian Rushworth) a team consisting of Ezemvelo KZN Wildlife ecologists and managers, KZN Crane Foundation, KZN

Department of Agriculture and Environmental Affairs, and local farmers are overseeing the introduction of cattle into two areas managed by the conservation agency.

One area, Middledrai, is a small property long used for grazing domestic stock and only this year acquired by KZN Wildlife. The other property is Umgeni Vlei, a major wetland in the Drakensberg and the source of the Umgeni River. This property has been under the control of the conservation body since 1987, before which it was utilised for commercial livestock production. Both of these sites are prime habitat for the endangered wattled crane and oribi.

Most wattled cranes can be found on privately owned land, and it for this reason that the KZN Crane Foundation has been working closely with landowners to monitor the status of the crane population and to encourage awareness of the status of the wattled crane amongst farmers. The cranes seem to thrive in areas that are grazed, often heavily, by cattle, and it is this fact that inspired KZN Wildlife to explore the possibility of managing their crane populations by allowing graziers to utilise protected areas. The cattle keep the grass on the margins of vleis short and open up pathways for the crane chicks, which would otherwise have difficulty in moving through the rank and moribund grass. The oribi also benefit from the mixture of short and tall veld left by grazing cattle.

KZN Wildlife is cooperating with neighbouring commercial farmers on the two properties. The Department of Agriculture is drawing up veld management plans, based on the objectives of the graziers and the conservation objectives of KZN Wildlife. Veld monitoring sites are being set up on both properties by the Department.

For management reasons, Umgeni Vlei has been divided in two by a cattle fence. One of the many hazards that a young wattled crane chick faces in its life is the standard barbed wire cattle fence. The chicks are tall enough for their necks and legs to get tangled up in the bottom two or three strands of a fence, where they slowly starve to death. For this reason, a crane-friendly fence designed by the crane foundation was used: four strands of wire, only the top one of which is barbed, with the bottom strand knee-high above the ground. This design should, hopefully, allow the crane chicks to pass through the fence unscathed. The possibility of converting some portions of the boundary fence into a more crane-friendly fence will also be examined.

The two properties are very different in character, although they both occur in Highland Sourveld. Middledrai is internally fenced and has been grazed fairly heavily for decades. Some areas are showing signs of overgrazing, with dongas (gullies) forming and the undesirable wiregrass, *Aristida junciformis* (Ngongoni grass), encroaching. The cattle will be managed under the grazing, resting and burning recommendations of the Department of Agriculture (one third of the property will have a full season's rest every third year followed by a burn).

Umgeni Vlei, however, is very different. There have been no large herbivores, or even large numbers of small herbivores, for 15 years. The veld is relatively tall compared to the adjacent grazed properties and dominated by large, vigorous tufts of the palatable *Themeda triandra* (redgrass). The composition of the flora may well be somewhat different from the neighbouring (grazed) properties, although this needs to be examined.

It is important to recognise that there are only limited opportunities in protected areas to use cattle as a management tool, and that where this is done it needs to be subject to very strict guidelines (stocking rates, grazing system,

season) and closely linked to the objectives of the area. Detailed monitoring programmes for vegetation and important animal species have to be set up to ensure that cattle grazing is having the desired effect. Money generated through leasing of the grazing is being ploughed straight back into the management of the areas e.g. alien plant control, erosion reclamation and fence maintenance, thus further benefiting conservation.

This project is in its early stages, but the cooperation between farmers, the KZN Department of Agriculture and Environmental Affairs, the KZN Crane Foundation and Ezemvelo KZN Wildlife promises exciting developments for the future. It is hoped that other institutions can also contribute to this exciting project by surveying and monitoring other aspects of the ecology of the vleis.

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## **NOTTINGHAM ROAD FARMER'S DAY**

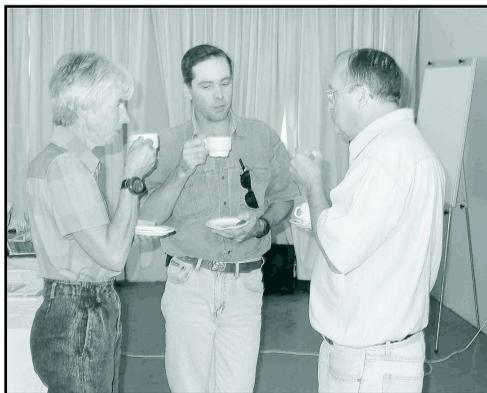
*Alan Short, KZN Department of Agriculture and Environmental Affairs, Cedara*

What started out as a bunch of mates who all happened to be farmers getting together transformed itself into an official farmer's day when the KZN Department of Agriculture was informed about the event. Chris Melouney and Adam and Nancy Rouillard, local farmers, and Alan Short from the Department of Agriculture, put together what was hoped would be an informative morning of talks. Unfortunately, the best laid plans of mice and men didn't predict that the Nottingham Road Sale Yards would change the date of their final ever sale, after a century of operation, to the same day. After two days of dithering and uncertainty on the part of the organisers, they decide to go ahead with the event anyway.

The Rouillards hosted the small gathering at a, rather surprisingly, fully equipped conference venue on the farm that they manage. Only five farmers arrived at the venue, but they generated heated debate around the issues of grazing and resting of veld, along with the other participants, who included representatives of the University of Natal, the Crane Foundation, and the KZN Department of Agriculture. The morning started with Brent Forbes from the Natural Resources section at Cedara discussing KwaZulu-Natal's bioresources, and the computer-based Bioresource programme that planners use to advise farmers and other land managers on the best options for their land.

Kelson Camp, a retired technician from the Department who had much to do with building the Bioresource programme, then gave an entertaining and informative talk on the basics of veld ecology. He reminded farmers that they were primarily grass farmers, who transform grass into cash via the medium of a grazing animal.

Cobus Botha, from extension services, then gave a long talk, which generated much

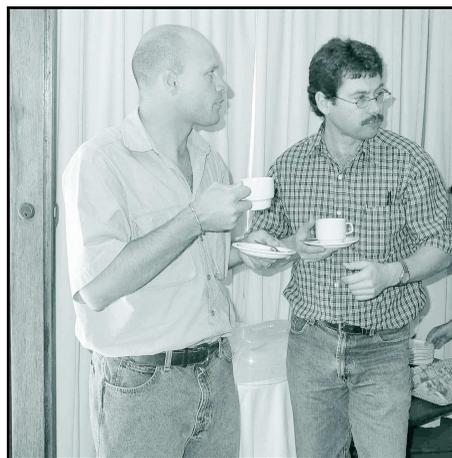


**Left to right: Iona Stewart and Thomas Shearing from the Department of Agriculture share a thought with Kelson Camp.**

discussion, on what the department considers the basics of veld management: grazing, resting and burning. It emerged that some farmers are sceptical about the economics of resting veld for an entire growing season, arguing that they cannot afford to reduce their stocking rate to accommodate a full season's rest on a large area of their farms. Although it was argued that resting veld does not require reduced stocking rate on the remainder of the farm, this was hotly debated.

The day ended up with Garrett Müller, an economist from extension services, discussing the rands and cents generated by improved veld management and the resultant improved livestock production.

Although the clash with the Nottingham Road sale was a disappointment for the organisers of the day, the day was successful in re-establishing the connection between the Department of Agriculture and the veld farmers in that area. This connection will be kept intact in the future through regular visits by Departmental staff, and participation in the farmers' study groups.



**Above: Cobus Botha (left) and Garrett Müller from extension services.**



**Above: Brent Coverdale from the Crane Foundation and B. Mennie, farmer and University of Natal student, deep in conversation.**

## **News from UniZul Department of Agriculture**

In August 2003, Land Bank granted R200 000 to the University of Zululand's Department of Agriculture for a Chair in Agriculture. Land Bank's sponsorship of research and training at universities is driven by an effort to reduce the gap between commercial and developing farmers, thus addressing the challenges the bank faces in its mission to finance agriculture. The activities of the recently endowed Chair in Agriculture are directed at the development of competent agricultural researchers and the dissemination of agricultural knowledge and skills among developing farmers. All the projects comprise both research and outreach components, and are implemented by final-year undergraduate students, postgraduate students and staff members of various departments in the university. Among the projects being conducted are:

- Improving the production of indigenous sheep at KwaMthethwa
- Sustainable livestock production at Emoyeni in the Pongola district
- Improving crop production and minimising impact in Mabibi
- Planning and implementation of community farms in KwaMkhwanazi



**Right: Cobus Botha from extension services discussing veld management systems**

**Below: Some of the small but interested audience.**

