

**Devil's Claw (*Harpagophytum procumbens*) in South Africa:**

**Conservation and Livelihood Issues**

**A synthesis of information currently available on the numbers of Devil's Claw harvesters in South Africa, and the role it plays in their livelihoods.**

**Interim Report submitted as part of the project on Devil's Claw (*Harpagophytum procumbens*) in South Africa: Conservation and Livelihood Issues**

**Funded by a Rufford Small Grant from the Whitley Laing Foundation for International Nature Conservation.**

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**November 2002**

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## **1. Introduction**

Devil's Claw (*Harpagophytum procumbens*) is an indigenous plant restricted to the semi-arid savannah areas of Botswana, Namibia and South Africa. The Devil's Claw plant is a perennial herb, sprouting annually from a tuberous primary tuber from which the secondary tubers are formed. The secondary tubers are harvested for medicinal purposes as they contain active ingredients with analgesic and anti-inflammatory properties. Devil's Claw has significant medicinal properties and currently a substantial trade in dried plant tubers takes place. The indigenous San and Khoi peoples of southern Africa have used Devil's Claw tubers for medicinal purposes for centuries. Europeans discovered the tuber's medicinal properties from the San and Khoi people in 1907, and since 1962 dried tubers have been exported to Europe for the production of herbal medicines to treat arthritis and rheumatism (Raimondo, 2001).

The current project (Devil's Claw in South Africa: Conservation and Livelihood Issues) has four main aims. These include:

- To determine the distribution of Devil's Claw in South Africa;
- To determine the amount of Devil's Claw currently being harvested in South Africa;
- To determine how many and which South Africans are harvesting this plant and what role this plays in their livelihoods;
- To develop policy recommendations to ensure the sustainable use of Devil's Claw.

The purpose of this interim report is to synthesize the existing data on the number and identity of harvesters and the role it plays in their livelihoods. As this report makes clear, with the partial exception of the North West Province, there is not a great deal of information currently available and the intention is that this project will provide a fuller picture.

## **2. South Africa's Involvement in the Devil's Claw Trade**

The Devil's Claw is found in the Northern Cape, North West and Limpopo Provinces of South Africa and commercial harvesting of the plant currently takes place in the North West Province and to a very limited extent in the Northern Cape. The commercial harvesting of Devil's Claw has only taken place in South Africa for the past two years, but has been occurring in Botswana and Namibia since the 1960s. In Botswana there are approximately 30 villages and 900 harvesters involved in the trade. Namibia is the world's largest producer of Devil's Claw (92% of the total international trade in 2001), with average exports of 600 tonnes per year (Raimondo, D, 2001). Harvesting is estimated to be the sole source of cash income for between 10 000 and 15 000 marginalized rural families in Namibia (Cole & Lombard, 2000).

The potential for trade in Devil's Claw in South Africa is unknown as there has been little research on the extent of this resource. From 2000 to 2001, the wild harvesting of Devil's Claw increased three-fold in South Africa (6 900 – 21 029 kg) (Powell, 2001). This increase in harvesting is positive in terms of the potential income

generating opportunities that are created for marginalized rural communities, but the sustainable use of Devil's Claw needs to be strictly controlled and closely monitored in order to ensure that over harvesting does not take place.

### **3. Devil's Claw harvesters and livelihood issues in South Africa**

The number of stakeholders involved in the Devil's Claw trade in South Africa is low, but interest is growing, with harvesters, harvested produce, and the number of exporters in the country on the increase. Current situations regarding Devil's Claw harvesting in the three provinces where the plant occurs are as follows:

#### **3.1) North West Province:**

In South Africa most harvesting takes place in communal lands of the former Bophuthaswana Homeland, which now forms part of the North West Province. This area borders the Kalahari Desert and the aridness of the land provides restricted livelihood opportunities for rural people. Livestock production, mainly for subsistence, has historically been the only livelihood option. Devil's Claw harvesting provides an opportunity for the generation of cash income where few other sources of cash income are available.

The North West Province Department of Agriculture, Conservation and Environment (DACE) initiated a Devil's Claw harvesting project in 2000, whereby poor marginalized communities in the province were empowered and given the skills to harvest Devil's Claw in a sustainable, controlled manner. DACE has trained local Tswana communities in site identification, sustainable harvesting methods, and the rehabilitation of harvested sites. Once an individual has successfully completed the training, he/she is provided with a harvester's identity card, which allows that person to be involved in, and benefit from, sustainable Devil's Claw harvesting operations (van der Vyver, 2001).

There are currently 1 250 trained and registered harvesters in the North West Province (van der Vyver, 2001). This number will increase as rural people start seeing the benefits that Devil's Claw can play in their livelihoods. The majority of the harvesters in the North West Province are women. The people involved in harvesting in the North West Province are all of the local Tswana ethnic group. Harvesters are paid, on average, approximately 24 Rand per kilogram of dried Devil's Claw material (van der Vyver, 2001). During the 2001 harvesting season, which took place over five months from March to July, a total of 14 780, 73 kilograms of dried Devil's Claw plant material was harvested and this equated to R 123 874, 49 (approximately 7 742 Pounds Sterling) paid out to the harvesters (van der Vyver, 2001).

Devil's Claw harvesting takes place during the rainy season, from November to June/July each year. The rainy season is thought to be preferable because the plants are most easily identified during this time and the soil is softer, which makes the digging up of the secondary tubers easier than in the dry season.

In the first harvesting season of 2000/2001, a total number of 10 904,20 kg of wet material and 14 780,73 kg of dry material was harvested. A total amount of R133 688,27 was paid out to the harvesters and R8 054,49 paid out to the various Tribal Authorities. This adds up to a total of R141 742,76 that was generated within the region to the benefit of local communities. Tribal Authorities who own the communal lands upon which the Devil's Claw harvesting takes place are entitled to a percent of the income generated from the sale of the harvested plant material, and they are thus paid out accordingly (van der Vuver, 2001).

During the second harvesting season of 2001/2002 a total number of 9 812,95kg of wet material and 88 744,66kg of dry material was harvested. A total amount of R1 799 689,66 was paid out to the harvesters during the second season and R 45 313,68 was paid out to the various Tribal Authorities. This adds up to a total number of R1 845 003.34 that was paid out to the community and it highlights the success of the project thus far (van der Vyver, 2001).

Generally, the local people involved in Devil's Claw harvesting in the North West Province are poor, and the cash income provided by harvesting is of some significance to them. Owing to low rainfall in the area in which they live, which impedes farming activities, Devil's Claw harvesting improves people's livelihoods. More precise information about the harvesters and the role that Devil's Claw harvesting plays in their livelihoods is not currently available.

### **3.2) Northern Cape Province:**

Much less harvesting takes place in the Northern Cape as compared to the North West Province, and presently there are only six commercial farmers who are registered to harvest Devil's Claw plants (Donalson & Raimondo, 2002). Rural communities in the Northern Cape are not involved in commercial Devil's Claw harvesting and the amounts of harvesting taking place by rural people for their subsistence / medicinal use is currently unknown.

It is presumed that the six commercial farmers involved in Devil's Claw harvesting in the Northern Cape use their labour force to carry out the harvesting. Presently, there is no information available on how many farm workers are involved and how much Devil's Claw plant material is being harvested. The economic significance of Devil's Claw to the commercial farmers and local communities in the province is also currently unknown.

### **3.3) Limpopo Province:**

Devil's Claw plants are found in the western reaches of the Limpopo Province. Presently, according to Limpopo Province Conservation Department officials, no harvesting takes place. There is very little information on the numbers and location of Devil's Claw plants in the province, and no apparent information on the use of the plant by indigenous people. The Limpopo Province Conservation Authorities have indicated that Devil's Claw is found in a few nature reserves, such as Lanjan Nature Reserve, near the town of Alldays, but information on plant numbers and exact locations, as well as people's use of the resource is non-existent. There is a definite need for scientific and socio-economic research to be carried out in the Limpopo Province, so that the potential for beginning some form of Devil's Claw trade in the province can be established.

## **4. Devil's Claw Conservation**

Over the past few years concerns have been raised that the Devil's Claw trade is contributing to the decline of this species. This opinion stems from reports that Devil's Claw populations are being severely reduced by unsustainable harvesting practices. These involve removing all underground roots and not replanting the primary tubers required for plant regrowth. The marked increase in export levels over the past few years are also considered to be unsustainable. Currently it is not known whether Devil's Claw is endangered as the species has a large range and occurs patchily in small populations, making it extremely difficult to monitor its conservation status. As mentioned previously in this report, one of the main aims of the Whitley Laing funded Devil's Claw research project will be to determine current Devil's Claw population figures and their locations, which will immeasurably contribute to the determination of the conservation status of the species. The North West Province DACE Devil's Claw Project is certainly a move in the right direction regarding the conservation and sustainable use of the plant, as community members are trained in sustainable harvesting methods and only then are they allowed to harvest the plants. The lessons learned and experience gained from this project must be used in the other provinces of South Africa, and in Botswana and Namibia, to promote the conservation status of this valuable species.

The South African government is in the process of developing policy and legislation to address biodiversity conservation and sustainable development. The Devil's Claw trade presents an interesting case for the assessment of the proposed legislation's applicability. Issues relating to natural resource utilisation such as benefit sharing, intellectual property rights, sustainable use, poverty alleviation and resource conservation are all central to the trade. In addition, the proposed legislation will have considerable impact on the future utilisation of this resource and on the socio-economic development of the marginalized communities who harvest Devil's Claw in South Africa. This illustrates the urgent need for scientific and socio-economic research to be carried out on the status of Devil's Claw in South Africa, so that information obtained can be fed into the policy-making process. This will promote the conservation of the plant and benefit rural communities harvesting Devil's Claw to generate income for themselves and thus improve their livelihoods.

## **5. Conclusion**

This report has illustrated the following points:

- The scientific information regarding the status of Devil's Claw plants in South Africa, such as population numbers and their locations, is not very extensive and definitely needs to be expanded so that the conservation status of the plant, and the potential for sustainable use of the resource, can be determined.
- There is extremely little socio-economic information on the Devil's Claw, and the role it plays in people's livelihoods, available, especially regarding the Northern Cape and Limpopo Provinces. Due to the work carried out by the North West Province Department of Agriculture, Conservation and Environment (DACE), more is known about Devil's Claw harvesting and the

people involved in the North West Province than the other provinces where the plant is found. The number of Devil's Claw harvesters in the North West Province is on the increase, but there is not much information on the role harvesting plays in their livelihoods.

- Positive steps have been made regarding the Devil's Claw trade in the North West Province, whereby DACE and local communities are working together to create opportunities for improved livelihoods from the sustainable harvesting of Devil's Claw secondary tubers.
- Key policies relating to natural resource conservation and utilisation are currently being developed in South Africa. In terms of the Devil's Claw trade, it is vital that these policies promote sustainable, equitable utilisation, and for this reason there is a need for scientific and socio-economic Devil's Claw research to input into the policies that are being developed.

The Whitley Laing Foundation funded project; 'Devil's Claw (*Harpagophytum procumbens*) in South Africa: Conservation and Livelihood Issues', is aimed at conducting research on the scientific and socio-economic status of Devil's Claw in South Africa, so that the above-mentioned issues are addressed and the gaps of information relating to the plant, the harvesters and subsequent livelihood issues are filled.

## 6. References

1. Cole, D. & Lombard, C. (2000). The Sustainably Harvested Devil's Claw Project in Namibia: Some Primary Producer Issues. Paper presented at the Medicinal Plant Forum for Commonwealth Africa. Cape Town. South Africa.
2. Donaldson, J. & Raimondo, D. (2002). The Trade, Management and Biological Status of *Harpagophytum* species in southern African Range States. A Report submitted to the CITES Plants Committee.
3. Powell, E. (2001). Sustainable utilization of the medicinal plant Devil's Claw in the Northern Cape, South Africa.
4. Raimondo, D. (2001). Devil's Claw Harvesting in the Kalahari. Network for Biodiversity. People and Biodiversity Case Study.
5. van der Vyver, C. (2001). Guidelines on sustainable harvesting of wild-craft Devil's Claw in the North West Province of South Africa.