

## DEVIL'S CLAW

Protective measures to ensure the sustainable use of *Harpagophytum procumbens*, one of South Africa's most valuable medicinal plants.

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Through the millennia of human existence on earth, the planet's natural medications, obtained largely from wild growing plants, have offered relief from illness and injury. It has been estimated that 80% of the world's population, and 75% of South Africa's population, still relies on traditional medicine - and these are considered conservative figures. In Africa, the reliance on traditional medicine is partly due to the high costs of conventional medicine, the ever-rising cost of health insurance, the inaccessibility of modern health-care facilities, and the fact that traditional medicine is often deemed a more appropriate method of treatment. European authorities are planning to assemble an authority to review all existing herbal medicines that doctors can prescribe. This is expected to reduce the number of herbal medicines reimbursed by insurance companies and may dramatically affect the demand for certain medicinal plants. *Harpagophytum procumbens* might be one of those most important medicinal plants to be listed, and as Africa provides wild plants for this 'industry', here is some background information on this interesting plant.

During World War II, German botanists Giess and Vlok kept themselves busy by identifying plants growing in the prison grounds of the internment camp where they were detained. They questioned a local San (bushman) man about the *tloutaxaba* (San for 'claw-like') plant, who said it was their most important medicinal plant as it cured all diseases. The San have been using it for thousands of years and its image appears in many of their rock engravings - one of the very few plants to have been engraved by San people. After the war, the botanists introduced *H. procumbens* to their homeopathic doctors in Germany. Today, it forms part of the approximately 60% of prescription medicines (in Germany) made from plant extracts and it is listed in European pharmacopoeias. It is used for the treatment of lower back pain, osteo-arthritis, rheumatism, gout, small-joint diseases, diabetes, hypertension, peptic ulcers, fever and tuberculosis, to name but a few.

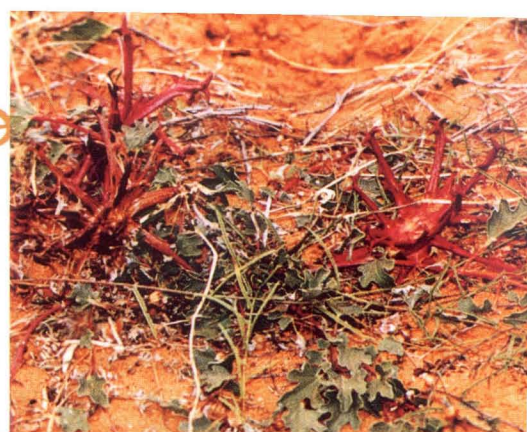
*Harpagophytum procumbens* is indigenous to the dry sandveld (Kalahari sands) areas of South Africa,

Botswana, Namibia, Angola and Zimbabwe. Of the five *Harpagophytum* subspecies, three occur in South Africa (*H. procumbens* subsp. *procumbens*, *H. procumbens* subsp. *transvaalense* and *H. zeyheri* subsp. *zeyheri*), with *H. procumbens* subsp. *procumbens* occurring mainly in the Northern Cape and North West Province. The latter is a weedy perennial plant with creeping stems spreading from a fleshy rootstock. Its flowers are tubular, and are either yellow and violet or uniformly dark violet.

The fruit, with its long hooked thorny arms with two straight thorns on the upper surface, hooks on to passing animals in order to disperse its seed.

*H. procumbens* is a highly priced medicinal source in Africa and the 'western world'. With increased demand for the plant (to over 500 tons annually worldwide) and as the economic benefits of this trade became apparent, there has been increased pressure on the natural resources, forcing conservation authorities to establish sustainable utilization legislation. As a result, a number of private initiatives in Namibia and South Africa are now successfully propagating the plant on a limited commercial scale and a permit system is in the process of being implemented in the Northern Cape and North West Province.

*H. procumbens* has been a proclaimed protected species in South Africa since 1975, and with the permit system for wild harvesting of this species to be proclaimed in the Government Gazette this year, it will be illegal to harvest it without a permit from the Provincial Nature Conservation Authority (i.e. Northern Cape Nature Conservation Service and/or North West Agriculture, Conservation and Environment). If large scale wild harvesting is to be done, prescribed harvesting procedures are to be followed to ensure sustainable utilization of this species. If a person (or company, or research



Top The characteristic fruit of the devil's claw or grapple plant, *Harpagophytum procumbens*.

Above Devil's claw or grapple plant, *Harpagophytum procumbens*, flowering in the dry Kalahari sands of the Northern Cape. Photos: Elsabè Powell.

institute) would like to cultivate the species for the purpose of trading or local use, relevant permits also need to be obtained, and if the grower and/or trader does not adhere to the permit conditions (Ordinance No. 19 of 1974), such action is deemed in violation of the law. In the case of large scale wild harvesting, a 'Resource Assessment Management Plan Report' also needs to accompany the permit application. The harvesting permit will then be issued with standardized permit conditions attached - stressing that harvesting must be done according to a quadrant system, only the secondary tubers may be harvested and the primary tuber should remain in the ground as specified. The main objective of this permit system is to prevent over-exploitation of *H. procumbens* in its natural habitat.

If there is any inquiry with regard to the permit system/procedures, please do not hesitate to contact:

Northern Cape Nature Conservation Service, Private Bag X6102, Kimberley, 8300. tel (053) 832 2143, fax (053) 831 3530, e-mail [elsabe@natuur.ncape.gov.za](mailto:elsabe@natuur.ncape.gov.za) and [marileen@natuur.ncape.gov.za](mailto:marileen@natuur.ncape.gov.za), or Department of Agriculture, Conservation and Environment, North West Province, Private Bag X34, Vryburg, 8600, tel (053) 927 2904/1809, fax (053) 927 0436, or Carla Van der Vyver (cellphone 082 532 1539) or Dan Moruakgomo (cellphone 083 274 4196).