

Could'a, Would'a, Should'a Protected the Hoodia!



Twenty years from now, do we really want to be contemplating such a thought? Failure to act with immediate effect could lead to extinction becoming a grim reality for the Hoodia and many other plant species that are being illegally poached and exploited for their medicinal properties.

The Hoodia plant is one of 400 medicinal plants that has been placed on an 'at risk of extinction' list by the Botanic Gardens Conservation International (BGCI). **Hoodia gordonii** is a flowering plant of the Apocynaceae family that is found naturally in semi-desert areas in **southern Africa**. Despite its resemblance and physical appearance, the Hoodia is not a relation of the cactus family. What makes the *Hoodia gordonii* so interesting to the rest of the world however is not its repugnant smell, which has been compared to the wonderful aroma of rotting meat, or (although still incredible) its ability to grow in one of the harshest environments on the planet, no, the *Hoodia gordonii* has gained an unfortunate celebrity status in the world of medicinal plants through its ability to **suppress human appetite**. A celebrity status that is matched only by the famous faces in the celebrity showbiz world of Hollywood who have reportedly indulged and gorged themselves to near starvation on this unique plant, in an attempt to develop waistlines that are almost invisible to the naked eye.

The indigenous **Bushmen** who roam the Kalahari Desert and surrounding areas have been making use of the Hoodia plant for centuries. Prior to and during long hunting trips or expeditions into the cruel environment of the desert, Bushmen consume the plant flesh in order to **stave off hunger and thirsts**. It comes as no surprise that a plant appearing to have such amazing, 'magical' properties of warding off hunger was so greedily eyed upon by the West. The ingredient responsible for this appetite suppressing effect was quickly isolated and unglamorously named 'P57'. Pharmaceutical companies have failed to synthesise 'P57' and in doing so the *Hoodia gordonii* has become an **extremely valuable plant**, both to the people of southern Africa and herbal remedy manufacturing companies. Hoodia extracts are

now used in a number of commercial dieting supplement products that have become popular among **overweight westerners** who are seeking a means of losing excess weight without the effort of exertion. The result of this demand from the West has driven prices of Kalahari Hoodia through the roof and in an attempt to cash in on this apparent 'gold mine' poachers began to seek out and gather wild Hoodia plants.

The Hoodia is highly adapted for the extreme weather conditions that exist in the **Kalahari**, despite this distribution of the plant is relatively sparse across the expanse of the desert. They can take several years to reach maturity. Cultivation has also proven to be rather difficult, although farms do exist in parts of Africa. The culmination of these issues along with the driving force of the potential for people to make lots of money by exploiting Hoodia has resulted in **CITES** (Convention on International Trade in Endangered Species of Wild Fauna and Flora) placing all Hoodia plants on a list of species that are **under threat** from trade. Only *Hoodia gordonii* has been found to produce the desired effects of quelling hunger, yet all Hoodia species have been protected under CITES due to concerns that the other species could be mistaken for *Hoodia gordonii*. Through its threatened species status the Hoodia can now only be collected from the wild or cultivated on farms in South Africa with a **valid permit**. The Namibian government initially enforced an all out ban on all harvesting and cultivation of wild and farmed species but has since followed South Africa by implementing a permit system which aims to manage and protect the plant against poor practices.

Illegal poaching and illegal cultivation of wild Hoodia **still persists**. As the market value and demand for Hoodia continues to rise it has become ever more tempting for greedy opportunists and those living in poverty to head out into the deserts of the Kalahari and attempt to make a quick buck. The resultant effects of this action is putting pressure on wild populations and threatening to **endanger** the survival of the plant into the future.



Hoodia Gordonii key facts:

Alternative names: 'Bushman's hat', 'Queen of the Namib' and 'bobbejaanghaap'

Plant family: Apocynaceae

Location: Namibia, South Africa and Angola

Preferred environment: Desert plains and rocky areas and a very hot, dry climate (Namib desert).

Description and features: Flowering stem succulent plant with cactiform features (appears similar yet unrelated to cactus family). Can grow to up to a metre in height.

Uses: Historically the plant was eaten by indigenous populations to suppress appetite. Adapted for the western market and sold as a dieting pill.

Status: **Endangered** - CITES and BGCI listed.

Why Should we Care?

There are many, **many reasons** why we should care and attempt to protect this unique species!

The Hoodia needs to be **protected** against the threat that is being imposed through poorly managed trade and illegal poaching.

As pharmaceutical companies have so far failed to produce a synthetic version of the P57 ingredient found in the *Hoodia gordonii* we have to accept that it will continue to be exploited in order to supply the demand. We must therefore look at the benefits that can be gained from such a plant, the benefits are many but will all require varying levels of management and investment.

Southern Africa is home to a large population who live in poverty. The Hoodia has the potential to **provide economic stability** in areas where there is unemployment and contribute towards improving quality of life.

The Hoodia is part of a more **global problem** of hundreds of plant species that are being threatened due to their medicinal properties. If we can **implement successful management** strategies for the Hoodia then these can be adapted and used elsewhere in the world.

The plant has **historical significance** to many tribes who have relied on the natural resources that the desert areas of Africa have to offer. If the Hoodia were to become threatened to the point of extinction then we would be on the verge of **losing culture and traditions** that have been practised longer than any written history.

It is part of a unique ecosystem that very few species are capable of living in. In such a sensitive environment **biodiversity** is integral for supporting and connecting the various flora and fauna species.

The Bigger Picture – Threat to Medicinal Plants across the Globe

No, the Hoodia is **not at all alone** in its plight to survive the heady heights of unwanted fame in the world of medicinal plants. Along with **399 other plant species** drawn up by the Botanic Gardens Conservation International the Hoodia has been defined as at risk of extinction due to over-collection and deforestation. From the **Yew tree** whose bark is used to derive cancer drugs, but numbers are dwindling as it takes almost **6 trees to create just one dose** and supply just cannot cope with the demand, to **half of all Magnolia** species which are used in traditional Chinese medicine techniques but are now under threat due to a loss of habitat from **deforestation**.

Many of our prescription drugs are derived from chemicals that were first identified in plants (exactly what we are struggling to do with the Hoodia!) and it is this basic fact that causes **grave concern** to many scientists. It is commonly accepted that there are likely to be many more natural cures for diseases that have yet to be discovered and that deforestation could be wiping out a vast source of these potential future '**miracle medicines**'. Belinda Hawkins who is a leading research officer for BGCI worryingly suggests that many cures for diseases such as cancer will be 'extinct before they are ever found'.

Action needs to be taken not just to reduce the loss in biodiversity but also in order to protect the immense value medicinal plants have in both healthcare and in supporting communities through the generation of income.

What can be done?

The Hoodia is endangered. But it does not have to be the beginning of the end for this remarkable plant. A reversal of current trends can be achieved by introducing **protection and management strategies** in order to **stabilise** wild populations and prevent escalation of illegal poaching.

A government and industry based **strategy** will help to improve the management of Hoodia farms. Establishing a best practice guide for sustainable farming will increase yields and help to build up a large volume of mature crops that can be cultivated.

As a signatory of the Convention on Biological Diversity, South Africa and Namibia are legally required to achieve the main goals of the treaty, most importantly this is:

- Conservation of biodiversity

These nations are **legally responsible for monitoring and protecting the Hoodia** in its natural environment.

Promote conservation of the Hoodia in the wild by applying the CBD treaty, educating the people who may resort to poaching and support organisations such as HOGAN (the Hoodia Growers Association of Namibia) who aim to promote the sustainable management of the plant in the wild. Currently there are just three areas in Namibia where the plant can be cultivated in the wild. **Education** can help to encourage locals to protect their native species and prevent illegal poaching.

Follow the example of **Egypt** in its success of the **Medicinal Plants Conservation Project**. This project has enabled the Bedouin community to cultivate and sustainably harvest wild medicinal plants. It also operates projects to raise public awareness and biodiversity education (visit <http://www.mpcpegypt.com/English/Global/Index.aspx> for more information).

What can you do?

It may be that you do not live anywhere near a *Hoodia gordonii* plant or any other medicinal plant for that matter but as has already been discussed there are many reasons why you should care about their protection and there are certainly things that you can do to help.

- Support your local botanical gardens – these places invest much of their time and money into research into all plant species both local and exotic, research that is vital for developing sustainable strategies for managing plants in their natural environment.
- If you do use herbal remedies or medicines make sure the ingredients are sustainably sourced.
- Hug a Hoodia – If you ever have the privilege of getting involved in plant conservation work, whether it is to help manage the Hoodia in Namibia or to plant a Yew tree then every effort helps.
- Support HOGGRAN

If we can sustainably cultivate our medicinal plants in the future then it will not just be the health benefits that we take away but also an improved biodiversity and a source of income for global communities. Nobody wants to be thinking in the future that we ‘could’a, would’a, should’a protected the Hoodia’, instead we want to be commending the efforts that have been invested into protecting such a unique species.



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For more information visit:

BGCI @ <http://www.bgci.org/>

CITES @ <http://www.cites.org/>

HOGGRAN @ <http://namibia-hoodia.com/htm/social.html>

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