

# Harpagophytum

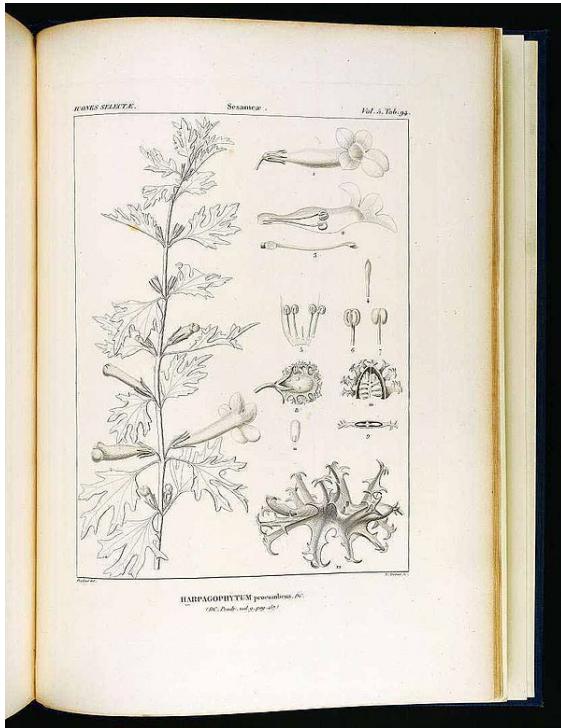
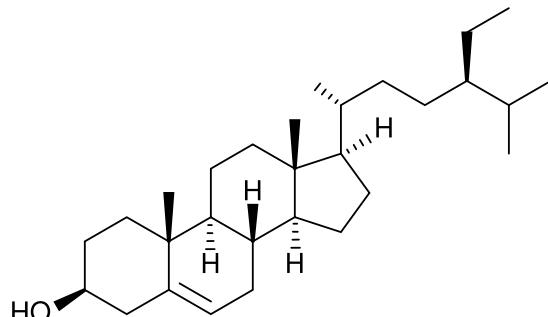


Plate from "Icones selectae plantarum", vol. 5: t. 94 (1846)

**Harpagophytum**, also called **grapple plant**, **wood spider** and most commonly **devil's claw**, is a genus of plants in the **sesame family**, native to **southern Africa**. It owes its common name Devil's Claw to the peculiar appearance of its hooked fruit. The plant's large tuberous roots are used **medicinally** to reduce **pain** and **fever**, and to stimulate **digestion**. European colonists brought devil's claw home where it was used to treat **arthritis**.

*Harpagophytum procumbens* is mainly found in the eastern and south eastern parts of **Namibia**, **Southern Botswana** and the **Kalahari region** of the **Northern Cape**, **South Africa**. *Harpagophytum zeyheri* is found in the northern parts of **Namibia** (**Ovamboland**) and southern **Angola**. The active ingredient is **harpagoside** (structure at PubChem) with values ranging in both species from 1.0% to 3.3%.

The name "devil's claw" is also used for several species of North American plants in the genus *Proboscidea*, as well as *Urtica dioica* and certain species of *Pisonia*.



*beta-sitosterol* is a minor constituent of Devil's Claw

## 1 Potential medical uses

The constituents thought to be responsible for the anti-inflammatory effects of Devil's Claw (dried secondary tubers) are **iridoid glycosides**, particularly **harpagoside** (trans-cinnamoyl harpagide) including small amounts of trans-coumaroyl harpagide, procumbide and plant sterols.<sup>[1]</sup>

## 2 Adverse reactions

Devil's claw may interfere with the action of **ticlopidine** and **warfarin**, and patients should consult with a physician before combining Devil's claw with these medications.<sup>[2]</sup> In addition, Devil's Claw promotes the secretion of stomach acid, leading to difficulties in those with **peptic ulcers**, **gastritis** or excess stomach acid. Care should also be taken for individuals with gallstones.

## 3 References

- [1] Wichtl Max (Ed.) 2004. *Herbal Drugs and Phytopharmaceuticals*. medpharm Scientific Publishers/CRC Press. pp 272-274 ISBN 0-8493-1961-7
- [2] Agatonovic-Kustrin, Morton, & Singh (2012). *Hybrid neural networks as tools for predicting the phase behavior of colloidal systems*. *Colloids Surf., A*, 2012, 415. p. 59-67.

## 4 External links

- National Institute of Medicine article on Devil's Claw
- Webpage for Doloteffin, the standardized extract used in clinical trials (in German)
- Harpago commercial cultivation project on the Avontuur farm in the Kalahari, South Africa (in English)

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