Pharmacogn. Commn. 2020;10(4):170.
A multifaceted peer reviewed journal in the field of Pharmacognosy and Natural Products
www.phcogcommn.org

Medicinal Plant Images

Ian Edwin Cock[1,2,*]
[1]Environmental Futures Research Institute, Nathan Campus, Griffith University, Nathan, Brisbane, Queensland, AUSTRALIA.
[2]School of Natural Sciences, Nathan Campus, Griffith University, Nathan, Brisbane, Queensland, AUSTRALIA.

Correspondence:
Dr. Ian Edwin Cock[1,2]
[1]Environmental Futures Research Institute, Nathan Campus, Griffith University, Nathan, Brisbane, Queensland, AUSTRALIA.
[2]School of Natural Sciences, Nathan Campus, Griffith University, Nathan, Brisbane, Queensland, AUSTRALIA.
Phone no: +61 7 37357637
Email id: i.cock@griffith.edu.au
DOI: 10.5530/pc.2020.4.35

Figure 1: *Grevillea robusta*. The genus *Grevillea* (family Proteaceae) consists of approximately 360 species native to rainforest and open regions of Australia, New Guinea, New Caledonia and Sulawesi, with the greatest diversity occurring in Australia. Grevilleas are commonly referred to as spider flower trees due to the appearance of their flowers and are also often referred to as silky oaks.

Grevillea flowers were used as a food source by Australian Aborigines. The flowers were sucked for their sweet nectar or used to make sweet drinks.[1] They also had roles as traditional bush medicines for Australian Aborigines. The leaves of several species were used to treat wounds and sores, skin diseases as well as diarrhoea and dysentery.[1,2] Many of these diseases are caused by bacterial pathogens. *Grevillea* spp. decoctions were also used as potent bacteriocides and are reputed to have broad-spectrum inhibitory activity.[6,7] Unfortunately most of our understanding of the antimicrobial potential of Australian *Grevillea* species is anecdotal, with few species being thoroughly studied. Indeed, we were only able to find two studies that have examined *Grevillea* spp. extracts for antibacterial activity.[3,4] Unfortunately, both of these studies screened for antibacterial activity using a single, relatively high extract concentration and did not determine MIC values, making it impossible to benchmark the efficacy of these extracts against other plant species and conventional antibiotics. More recently, studies have reported antibacterial activity for *Grevillea* juncifiolia Hook. and *Grevillea robusta* A. Cunn. ex R. Br. (the pictured species).[5]

Figure 2: *Elephantorrhiza suffruticosa* Schinz. Four species of the genus *Elephantorrhiza* (*E. burkei* Benth., *E. elephantina* (Burch.) Skeels, *E. goetzei* (Harms) Harms and *E. suffruticosa*) are highly regarded as medicinal plants in southern Africa.[6-8] *Elephantorrhiza* spp. are reported to be used to treat gastrointestinal tract infections,[9] skin diseases,[9,10] malaria,[11] pain, infertility and impotence.[9]

REFERENCES

1. Cock IE. Medicinal and aromatic plants–Australia. in Ethnopharmacology section, Biological, Physiological and Health Sciences. Encyclopedia of Life Support Systems. 2011.
2. Lassak EV, McCarthy T. Australian Medicinal Plants. A Complete Guide to Identification and Usage. New Holland Publishers. 2011.
3. Ullah MS, Sikder MA, Sharmin T, *et al*. Pharmacological activities of *Grevillea robusta*, a medicinal plant of Bangladesh. Bangladesh Pharm J. 2014;17(2):135-7.
4. Cock IE, Ruebhart DR. Assessment of the toxicity of selected Australian native plant extracts using the Artemia franciscana nauplii bioassay. Int J Toxicol. 2008;5(2):2.
5. Cock IE. *Grevillea juncifiolia* Hook. and *Grevillea robusta* A. Cunn. ex R. Br. methanolic leaf and flower extracts inhibit the growth of gram positive and gram negative bacteria. Pharmacogn. Commn. 2019;9(3):112-7. DOI: 10.5530/pc.2019.3.23
6. Gelfand M, Mavi S, Drummond RB, Ndemera, B. The Traditional Medical Practitioner in Zimbabwe. His Principles of Practice and Pharmacopoeia, Mambo Press, Gweru, Zimbabwe. 1985.
7. Hutchings A, Scott AH, Lewis G, Cunningham A. Zulu Medicinal Plants. An Inventory, University of Natal Press, Pietermarizburg, South Africa. 1996.
8. Maroyi A. Phytochemical and ethno pharmacological review of *Elephantorrhiza goetzei* (Harms) Harms. Asian Pacific Journal of Tropical Medicine 2017;10(2):107-13.
9. Maroyi A. *Elephantorrhiza elephantina*: Traditional uses, photochemistry and pharmacology of an important medicinal plant species in southern Africa. Evidence-Basded Complementary and Alternative Medicine. 2017. Article ID 6403905.
10. Cock IE, Vuuren SFV. A review of the traditional use of southern African medicinal plants for the treatment of fungal skin infections. Journal of Ethno Pharmacology. 2020;251. https://doi.org/10.1016/j.jep.2019.112539
11. Cock IE, Selesho MI, Vuuren SFV. A review of the traditional use of southern African medicinal plants for the treatment of malaria. Journal of Ethno Pharmacology. 2019;245:112176. https://doi.org/10.1016/j.jep.2019.112176