



IPH Newsletter September 2018

“A Community Not for Profit Association”

Welcome to our first edition of IPH newsletter. Each month we plan to publish a newsletter for our members which will have information on various plants, actions we have taken as an association and details of future activities and events

Plant of the Month

By Andrew Pengelly PhD

Alphitonia excelsa

Family: RHAMNACEAE



Common Names: Red Ash, soap tree

This medium to large evergreen tree has a distribution that extends through much of eastern NSW and Queensland, and across the top end of northern Australia. It can be seen growing in a series of locations from the back of sand dunes, through to eucalypt woodlands and rain forests, where it can grow up to 35m tall. The most spectacular specimen I have seen is right in front of the visitor's centre at the Hunter Region Botanical Gardens, it is worth a visit there just to see this tree.

The most striking feature of the tree is the leaf, being glossy dark green on top, but whitish below with rusty brown midribs. The white flowers are small but fragrant, giving way to small berry-like fruit that turn black when ripe. Flowering occurs during Autumn in New South Wales.

Medicinal properties

The medicinal parts are the leaves and bark. While the bark is high in tannins which provide astringent and antimicrobial properties, the leaves are rich in triterpenoid saponins. Saponins were measured by a simple “froth test” carried out as part of phytochemical screening in preparation of the Aboriginal Pharmacopoeia. “*Alphitonia excelsa* gave an extremely strong test and therefore stands out from all other plants”.

It also scored highly on the Liebermann-Burchard Test for triterpenes and steroids. Saponins are also known to have anti-inflammatory properties, which would account for some of their medicinal uses.

Aboriginal uses

Leaves of the plants are rubbed between hands with a little water to produce a good lather, handy for cleaning and disinfecting the skin. Infusion of leaves in warm water is used as a lotion to relieve headaches and sore eyes. A leaf infusion may also be used to relieve bites and stings. Direct application of a leaf can be effective as I found for myself, when I was stung by a wasp while exploring Moreton Island a few decades back – the intense pain almost instantly vanished. Decoctions of the bark have also been used to relieve toothache and for rubbing into muscles to relieve aches. Young leaves are chewed to relieve gastric upset.

Other uses

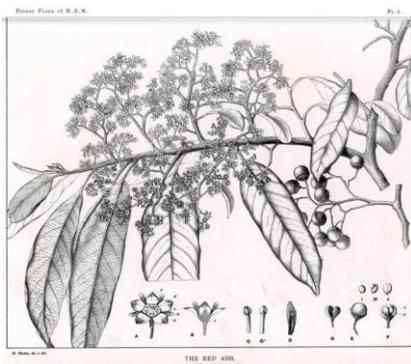
Crushed leaves and berries have been used as a fish poison. Saponins are highly soluble in water, and their detergent action breaks down the surface tension of water, causing fish to float to the surface.

Timber from *A. excelsa* is useful in cabinet making and general building purposes including boat building. These include barrel construction, leading to a lesser-known name for the tree – “cooper’s wood”.

This species is an excellent shade tree for livestock, and it has been used as a fodder tree for sheep and cattle. The leaves do attract many insect predators, making it a little unsightly at times, however it is also the host species for several species of butterflies and moths and it attracts a host of bird species.

Cultivating red ash

The tree will grow readily in a variety of locations, and it is propagated by seed or cuttings. Seed is sometimes scarified and/or soaked in warm water before sowing. Seeds can germinate quite quickly, and it is generally a relatively fast-growing species. It is moderately tolerant of frost and drought, and being salt-tolerant is suitable for coastal wind-breaks.



Images from Wikipedia commons

References

Aboriginal Communities of the Northern Territory of Australia. 1988. *Traditional Bush Medicines, An Aboriginal Pharmacopoeia*. Greenhouse Publications, Richmond Vic.

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IPH Work In Progress

Since our inception in May 2018 we have taken a number of steps towards our goals. These are summarized below

- Information sessions with local and Council earthmovers are currently underway in order to familiarize them with indigenous plants for health. This is the first step to avoid indiscriminate land clearing
- A number of meetings have been held with local Koori community members to partner with the sharing of indigenous and scientific knowledge. Trust and fear within the Koori community is our main challenge.
- We are having discussions with Koori legal team to set up a structure that will protect indigenous intellectual property rights and benefits.
- Representations have been made to local, State and Federal Government to seek funding
- A community awareness program is currently being organized for the end of October, details of this event will be sent out as soon as it's finalized.

Our First Research Project



For millennia the indigenous tribes on the eastern coast of Australia used the berries of the Persoonia plant (gee bung) as a natural anti-biotic. An Australian study by Macleod, Rasmussen and Willis in 1997 indeed confirmed that the berry 'shows broad spectrum antimicrobial activity'. Since this study there has been no further research on the potential of this plant's anti-microbial property.

The first study according to Dr Pengelly will be on the Persoonia plant to build on the previous study by Macleod et al. He said that 'the study will be conducted by Newcastle University and we are now waiting for the berries to ripen which should be around Oct/Nov.

Your membership

As a valued association member your membership fees go towards research projects, we are a not for profit association. The intellectual property rights and any future revenue from products developed through will go to the benefit of the local Koori community.

If you have any questions or feedback we would welcome them through our contact page on our website www.indigenousplantsforhealth.com

If you have friends who may be interested in the work of the association please pass on our contact , the more members we have the more we can achieve through the spreading of knowledge and our ability to get funding.

IPH Committee Members

President: Stephen Balogh

Vice President: Denis Stewart

Research Director: Andrew Pengelly

Regulatory Affairs: Rob Santich

Secretary: Kathleen Bennett

Treasurer: Julie Brown