FLORA

BLOODROOTS

IN late spring and early summer, strange-looking black plants poke stiffly upwards among the lower vegetation in bushland throughout the south-west of WA. They are Bloodroots, and they are odd in more than colour .....

Botanically, Bloodroots are called *Haemodorum*, and they give their name to the Haemodoraceae, the family to which Kangaroo Paws belong. They all are geophytes - perennials which grow from a (blood-red) underground storage organ and die back each summer. The leaves are either terete (cylindrical) or strap-like. As the flowering stem elongates, it becomes blackish and in our south-western species, the flowers are completely black, and rather shiny. They have six perianth segments and three stamens.

There are about 20 species of Bloodroots , of which 15 occur in WA, 10 in the south-west but there are also 5 species in the Kimberley. The south-west species grow in damplands, woodlands, sandplains and granite outcrops, often being very common in winter-wet areas. The commonest and most widespread species are *H. laxum*, *H. simplex* and *H. spicatum*.

Black flowers are rather rare, so there is considerable interest in what could be pollinating these plants. It would seem, for some species at least, that it is Blue-banded Bees, *Amegilla* spp. These are quite large for native bees (about the size of a Honeybee) and are active during summer. Bees, of course, can see colour, and it is thought that the bloodroot flowers show up in ultra-violet, which the bees see well. On the Darling Scarp, at the same time that they are pushing their way into the bloodroot flowers, they can be seen visiting blue-flowered species out at that time, *Scaevola glandulifera*, *S. platyphylla* and *Goodenia caerulea*. The bees make solitary nests, often in a borer hole in dead wood. (*ref:* 'Native Bees' by Terry Houston. WW 1/3)

Fires in winter or spring, when the plant is growing, may kill it, but the underground bulb is perfect protection from a summer or autumn fire, and the nutrients released, together with lack of competion, will cause prolific flowering the following year. Some species seem to only flower after fire - one such is *H. brevisepalum* which occurs from Dongara to the Stirling Range and east to Newdegate. Without a fire, its single, grass-like leaf would easily be missed on surveys, so it is probably much more common than Herbarium records would show.

Blue-banded bee forcing open a flower of H. discolor to obtain nectar
(drawing: Greg Keighery)

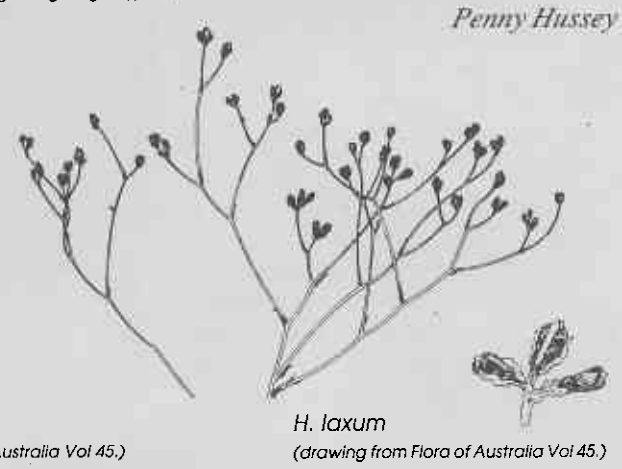
The fruit dries to a hard capsule which splits and the tiny, winged seeds are shaken out as the stalk sways in the wind. Capsules are easy to collect, but I have had no luck with direct seeding of *H. simplex* and *H. spicatum* (the only ones I have tried) although I have not used smoke, to which they would probably respond well.

In the Kimberley, Aboriginal people dug up bloodroots, and ate the bulb. They also used a red dye obtained from the underground parts, but there is no record of SW Aboriginal people doing so. However, children growing up during early settlement days in the Avon Valley apparantly made war-paint from the bulbs - they must have learned to do this from their Aboriginal companions. One Kimberley species, *H. ensifolium*, was used as an antidote for snakebite.

If the bushland is intact, bloodroots survive well, coping even with veld grass infestation of banksia woodland, for example. Heavy grazing pressure, whether it be from stock, rabbits or kangaroos, will remove the growing stem and so prevent seed spread. If this happens in the season after a fire, it could have dire consequences for the species' survival at that site. Another good reason to fence even small areas of bushland.

Penny Hussey

H. spicatum
(drawing from Flora of Australia Vol 45.)



H. laxum
(drawing from Flora of Australia Vol 45.)