Black Bat Flower

_Tacca chantrieri_

The ominous black flowers of this understorey plant from moist tropical rainforests of south-east Asia seem to be more fitting for Halloween than a cheerful floral display. _Tacca chantrieri_ has an underground stem (rhizome) and broad, dark green leaves, but it is the inflorescence – the arrangement of flowers - that is most eye catching. Each inflorescence has dark, broad, wing-like _bracts_ then many long whisker-like _bracteoles_ beneath them. At the centre, nodules of dark, 5-petaled flowers, all contribute to the bat-like appearance of the inflorescence. The long whiskers have also spawned names such as _Devil Flower_, or _Cat Whiskers_.

Black, and other dark-coloured flowers typically found in tropical forests are often associated with unpleasant odours that resemble rotting flesh to attract carrion or dung flies for pollination; this is known as _sapromyiophilous_ syndrome. However, the Black Bat Flower is an exception, as recent studies have shown it to be _self-pollinating_ and not dependent on flies. Although flies are observed to enter the flowers, because of the lack of rewards they attempt to leave but the structure of the flowers is such that this is impossible. Hence they cannot assist in...
pollination. Moreover, pollen bundles are present on flower stigmas prior to the flowers opening, a good indicator that flowers are self-pollinating. So why would the inflorescence no longer attract pollinators? If Bat Plants were once insect pollinated, the pollinators have long gone extinct.

Worldwide, there are about 16 species of *Tacca* in the *Yam* family, Dioscoreaceae, including other *Bat Flowers* and *Polynesian Arrowroot*. The underground stems of Bat Flowers are tuberous rhizomes, like those of Polynesian Arrowroot, *Tacca leontopetaloides*, a plant of economic importance across the Pacific.

**World Distribution of *Tacca* species – includes Bat Flowers and Polynesian Arrowroot. Map: Vardion, Public domain, via Wikimedia Commons.**

Australia has two species of *Tacca*, *T. leontopetaloides* across northern Australia and *T. maculata*, known from northern regions of Western Australia and north-western Northern Territory, as well as Fiji and Samoa. The flowers of *T. maculata* also have the spectacular *whiskers* of the bat plants. Flowers are green on the outside, maroon inside.

![Distribution of Tacca leontopetaloides; Polynesian Arrowroot, in Australia](https://example.com/arrowroot_map.png)  
![Distribution of Tacca maculata in Australia](https://example.com/arrowroot_map.png)

*Tacca maculata* from northern Western Australia and the Northern Territory, Fiji and Samoa. Photo: Shib68, CC BY-SA 4.0 <https://creativecommons.org/licenses/by-sa/4.0>, via Wikimedia Commons
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Atlas of Living Australia: Distribution map, *Tacca leontopetaloides*

Atlas of Living Australia: Distribution map, *Tacca maculata*

University of Reading, Tropical Biodiversity. https://blogs.reading.ac.uk/tropical-biodiversity/2014/11/tacca-chantrieri/
Wikipedia: https://en.wikipedia.org/wiki/Tacca_chantrieri