

Pandanus tectorius

*Pandanus tectorius* is a species of *Pandanus* (screwpine), occurring from near [Port Macquarie](#) in [New South Wales](#) to northern [Queensland](#), [Australia](#) and [Indonesia](#) east through the islands of the tropical [Pacific Ocean](#) to [Hawai'i](#) (where it is known locally as the *hala* tree). Its exact native range is unknown due to extensive cultivation; it may be an early [Polynesian](#) introduction to many of the more isolated Pacific islands on which it occurs.

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## Description



*Pandanus tectorius* fruit showing phalanges.

*P. tectorius* is a [tree](#) that grows to 4–14 metres (13–46 ft) tall. The single [trunk](#) is spiny and forks at a height of 4–8 metres (13–26 ft).<sup>[1]</sup> It is supported by [prop roots](#) that firmly anchor the tree to the ground. Its leaves are usually 90–150 centimetres (3.0–4.9 ft) long and 5–7 centimetres (2.0–2.8 in) wide with saw-like margins.

### [\[edit\]](#) Flowers

*P. tectorius* is *dioecious*, with very different male and female [flowers](#). Male flowers are small, fragrant, form clusters or [racemes](#), and short lived, lasting only a single day. Female flowers resemble [pineapples](#).<sup>[1]</sup>

## [\[edit\]](#) Fruit

The screwpine tree's [fruit](#) is either [ovoid](#), [ellipsoid](#), subglobose or [globose](#) with a diameter of 4–20 centimetres (1.6–7.9 in) and a length of 8–30 centimetres (3.1–12 in). The fruit is made up of 38–200 wedge-like phalanges, which have an outer fibrous [husk](#). Phalanges contain two seeds on average, with a maximum of eight reported. The phalanges are [buoyant](#), and the seeds within them can remain viable for many months while being transported by [ocean currents](#).<sup>[1]</sup>

## [\[edit\]](#) Habitat

*P. tectorius* naturally grows in [coastal](#) regions, such as on [mangrove](#) margins and [beaches](#).<sup>[1]</sup> at elevations from sea level to 610 metres (2,000 ft).<sup>[2]</sup> It requires 1,500–4,000 millimetres (59–160 in) of annual rainfall. Screwpine is well adapted to grow in the many [soil](#) types present on coasts, including [quartz sand](#), [coral sand](#), and [peat](#), as well as in [limestone](#) and [basalt](#). *P. tectorius* is [salt](#) and wind tolerant and favors slightly [acidic](#) to [basic](#) soil ([pH](#) of 6–10). It prefers to grow in full sunlight, but grows well with 30–50% shade.<sup>[1]</sup>

## [\[edit\]](#) Uses

The fruit can be eaten raw or cooked and is a major source of food in [Micronesia](#), especially in the [atolls](#). The fibrous nature of the fruit also serves as a natural [dental floss](#). The tree's leaves are often used as flavoring for sweet dishes such as [kaya jam](#), and are also said to have medicinal properties. Leaves were used by the [Polynesians](#) to make baskets, mats, [outrigger canoe sails](#), [thatch](#) roofs,<sup>[3]</sup> and [grass skirts](#).

## [\[edit\]](#) Culture

The seal of [Punahou School](#) in [Honolulu](#), [Hawai'i](#) features the hala tree, in part because [lauhala](#), the art of weaving with the leaves of that tree, is pivotal to the [history of the island](#), with everything from houses to pillows being made in this fashion. Local legend tells of an aged Hawaiian couple who lived long ago above the present Punahou campus, and had to travel far for water. They prayed each night for a spring, but to no avail. Finally one night, in a dream answering their prayers, they were told to uproot the stump of an old hala tree. They did as they were told and found a spring of clear, sweet water, which they named Ka Punahou, the New Spring. According to legend, Punahou School's lily pond is fed by this same spring.

## [\[edit\]](#) Ecology

The [stick insect](#) *Megacrania batesii* lives and feeds only on this species.

## [\[edit\]](#) Gallery



Closeup of *Pandanus* leaf showing thorns.



*Pandanus* [prop root](#) structures.



*Pandanus tectorius* at [Hat Head National Park NSW, Australia](#)



*Pandanus tectorius* at [Hat Head National Park NSW, Australia](#)

## [\[edit\]](#) References

1. ^ [a b c d e](#) Thomson, Lex A.J.; Lois Englberger; Luigi Guarino; R.R. Thaman; Craig R. Elevitch (April 2006) ([PDF](#)). *Pandanus tectorius (pandanus)*. The Traditional Tree Initiative. <http://www.agroforestry.net/tti/P.tectorius-pandanus.pdf>.
2. ^ Little Jr., Elbert L.; Roger G. Skolmen (1989) ([PDF](#)). *Hala, screwpine*. United States Forest Service. [http://www.ctahr.hawaii.edu/forestry/Data/CommonTreesHI/CFT\\_Pandanus\\_tectorius.pdf](http://www.ctahr.hawaii.edu/forestry/Data/CommonTreesHI/CFT_Pandanus_tectorius.pdf).
3. ^ Kubota, Gary (26 June 2007). "Funds help hala trees strengthen isle roots". *Honolulu Star-Bulletin*. <http://archives.starbulletin.com/2007/06/26/news/story09.html>.
  - [Pandanus tectorius from Foster Garden, Honolulu, Oahu Island, Hawai'i](#) [World plants, visual gallery](#) University of Murcia. Spain
  - NSW Department of Environment & Climate Change [\[1\]](#)
  - Australian Native Plants - John W. Wrigley & Murray Fagg [ISBN 1 876334 90 8](#)
  - Christenhusz, M.J.M. (2009). Typification of ornamental plants: *Pandanus tectorius* (Pandanaceae). *Phytotaxa* 2: 51-52.

### ***Pandanus tectorius***



*Pandanus tectorius* growing in the mountains of [O'ahu](#) in [Hawai'i](#)

### **Scientific classification**

Kingdom:	<a href="#">Plantae</a>
(unranked):	<a href="#">Angiosperms</a>
(unranked):	<a href="#">Monocots</a>
Order:	<a href="#">Pandanales</a>
Family:	<a href="#">Pandanaceae</a>
Genus:	<a href="#">Pandanus</a>
Species:	<b><i>P. tectorius</i></b>

### **Binomial name**

***Pandanus tectorius***

[Parkinson](#) ex [Zucc.](#)

### **Synonyms**

*Pandanus pedunculatus* R.Br.

[http://en.wikipedia.org/wiki/Pandanus\\_tectorius](http://en.wikipedia.org/wiki/Pandanus_tectorius)