

## Turnera subulata

Turnera subulata is a species of flowering plant in the passionflower family known by the common names white buttercup, sulphur alder, politician's flower, dark-eyed turnera,[2] and white alder.[2][3] Despite its names, it is not related to the buttercups or the alders. It is native to Central and South America, from Panama south to Brazil. It is well known in many other places as an introduced species, such as Malaysia, Indonesia, several other Pacific Islands, the Caribbean, and Florida in the United States.[1][4]

It is commonly cultivated as a garden flower.[4]

This plant is a perennial herb growing from a thick taproot and woody stem base. It reaches a maximum height around 80 cm (31 in). The leaves are roughly oval in shape with toothed edges. The undersides are glandular and coated in white hairs. The upper surfaces may be somewhat hairy, as well. The leaves are up to 9 cm (3.5 in) long.[3]

Flowers occur in the leaf axils, borne in calyces of hairy, glandular sepals. The petals are rounded to oval, the longest exceeding 3 cm (1.2 in).[3] They are white or yellowish with darker bases.[2] The dark patches at the bases are nectar guides.[5] The center of the flower is rough, feeling like a cat's tongue.[2]

The plant is pollinated by a variety of insects. A common pollinator is the bee species *Protomelitura turnerae* which prefers only its nectar and depend completely on it for reproduction. The male bee builds his territory around the plant, for example. Other insects observed at the plant include many other bee species, such as *Trigona spinipes*, *Frieseomelitta doederleinii*, and *Plebeia flavocincta*, butterflies such as *Nisoniades macarius* and *Urbanus dorantes*, and the beetle *Pristimerus calcaratus*. [5]

The fruit is a hairy capsule containing seeds with white arils.[3] The seeds are dispersed by ants, who are likely attracted to their high lipid content.[6]

Like most other *Turnera*, [5] this species is heterostylous, with two morphs. The "pin" morph has long styles in its flowers, while the "thrum" morph has short styles. Both morphs produce the same amount of pollen. One study reported that during pollination, pin flowers receive more pollen from thrum flowers than from other pin flowers.[7] The genes that cause this dimorphism in style size are the subject of current research. So far, it has been established that short styles contain proteins, polygalacturonases, that are absent in long styles.[8]

This plant has uses in traditional medicine.[9]

