



## *Aiphanes grandis* Borchs. & Balslev

Status: Endangered (EN)

### Common name

None recorded

### Natural range

*Aiphanes grandis* is endemic to the western slopes of the Andes mountains in Ecuador, at elevations between 1000 and 2000 m. It occurs in cloud forest in the central and southern parts of the country.

### Recognition characteristics

It is a large, solitary palm tree, with a stem up to 20 m tall and 10–20 cm in diameter. The stem and leaves are fiercely armed with long, black spines. The leaf blade is 200–250 cm long with up to 50 leaflets on each side, briefly jagged at apex, inserted in groups and pointing in different directions. The inflorescence is 1–1.5 m long, with up to 200 spreading branches. Flowers are white to pale yellow and fruits 2–3 cm in diameter, dull green and covered with brown, loosely attached bristles. The combination of jagged leaflets and large size distinguishes the species from all other South American palms.

### Natural history

Little is known about the natural history of the species. The palm heart is edible, and its seeds are sometimes pureed and cooked with crude cane sugar to form a nougat-like paste.

### Threats to survival

The estimated loss of potential habitat for *A. grandis*, based on habitat modeling, is 62%, most of which has occurred over the last 30–40 years. The west Andean mountain forest in southern and central Ecuador, where *A. grandis* occurs, harbors a high number of endemic plant species. It is also the home to remnant populations of such conspicuous palm species as *Ceroxylon ventricosum* and *C. alpinum* subsp. *ecuadorensis*, both considered vulnerable. *Aiphanes grandis*, as with other large palms, is often left over when the forest is converted into pasture, but as with other palm species, it is unable to regenerate in a tall grass-dominated vegetation. Furthermore, local farmers may object to its presence due to the fiercely armed stem and leaves that constitute a problem to grazing cattle and hence try to eradicate it from their pasture fields.

### Current Conservation Measures

Increasing awareness of the critical situation of the mountain forests in western Ecuador has led to the establishment of several small, privately funded protection areas, but it is not known if a substantial population of *Aiphanes grandis* occurs inside any of these. The only national park on the west-Andean slopes in Ecuador is located north of the known range limit of *A. grandis*.

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## Additional Necessary Conservation Actions

A population census and search for additional forest remnants housing the species should be performed, and its requirements for natural regeneration should be investigated. The possibilities for *in vitro* propagation of the species should also be examined.

## References

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## Scientific Contributors

Dr. Finn Borchsenius, Department of Biological Sciences, University of Aarhus, Denmark .

Hugo Mogollon, Finding Species, Ecuador.



Habit of *Aiphanes grandis* at Sambotambo, southwestern Ecuador. Photo by F. Borchsenius