

= *Zombia* =

*Zombia antillarum*, commonly known as the zombie palm, is a species of palm tree and the only member of the genus *Zombia*. It is endemic to the island of Hispaniola in the Greater Antilles. Usually found in dry, hilly areas of northern and southern Haiti and the northwest of the Dominican Republic, *Z. antillarum* is a relatively short fan palm with clustered stems and a very distinctive appearance caused by its persistent spiny leaf sheaths. Threatened by habitat destruction in Haiti, *Z. antillarum* is a popular ornamental species due to its distinctive appearance, low maintenance requirements and salt tolerance.

= = Description = =

*Zombia antillarum* is a small palm which grows in dense, multi-stemmed clumps with stems up to 3 metres (10 ft) tall and 5 centimetres (2 in) in diameter. Individuals bear nine to 12 fan-shaped (or palmate) leaves which are greyish-white on the lower surface. The leaf sheaths remain attached to the stem after the leaf drops off. The intervening tissue gradually degrades, and the woody vascular tissue splits, forming the spines which are characteristic of the species.

The inflorescence, which is shorter than the leaves, bears bisexual flowers with 9–12 stamens and a single carpel. Fruit are white in colour (although orange fruited individuals are also known to exist), oblong or pear-shaped, 1–5–2 cm (0–6–8 in) in diameter and bear a single seed. The flowers and fruit are borne among the leaves due to the fact that the inflorescences are shorter than the leaves. Trees can produce 5000 seeds per year, predominantly in July and August.

The species is believed to be wind pollinated.

= = Taxonomy = =

*Zombia* is a monotypic genus; it includes only one species, *Z. antillarum*. The earliest description of the species is found in the work of French physician and botanist Michel Étienne Descourtilz. In 1821 he placed it in the genus *Chamaerops* as *C. antillarum*. Italian naturalist Odoardo Beccari independently described the species in 1908, placing it in the genus *Coccothrinax* (as *C. anomala*). Recognising that it was distinct enough to be placed in its own genus, American botanist Liberty Hyde Bailey erected the genus *Zombia* in 1931 to accommodate the species that Descourtilz had described. This generated the combination *Z. antillarum*. In selecting a name for the genus, Bailey noted that

it would be preferable if this endemic palm could bear a Latin name indicative of its nativity rather than an exotic binomial of no relation with its country and the people.

In 1941 another American botanist, Orator F. Cook, moved Beccari's *C. anomala* to a new genus, *Oothisrinax*. This generated a fourth combination, *O. anomala*. Since Descourtilz's description pre-dates that of Beccari, *Zombia antillarum* (which is based on Descourtilz's description) has priority over *Oothisrinax anomala*. In addition, Cook's name is invalid, since it was apparently never formally described.

In the first edition of *Genera Palmarum* (1987), Natalie Uhl and John Dransfield placed the genus *Zombia* in the subfamily Coryphoideae, the tribe Corypheae and the subtribe Thrinacinae using Harold E. Moore's 1973 classification of the palm family. Subsequent phylogenetic analysis showed that the Old World and New World members of the Thrinacinae were not closely related. As a consequence of this, *Zombia* and related genera were placed in their own tribe, Cryosophileae. Within this tribe, *Zombia* appears to be most closely related to the genera *Coccothrinax* and *Hemithrinax*, and the species *Thrinax morrisii*, with the remainder of the genus *Thrinax* being a sister taxon to this group. Because of this, *T. morrisii* was moved to a new genus, *Leucothrinax*.

In 1960 Dominican botanist José de Jesús Jiménez Almonte described a variety of *Z. antillarum* which was distinguished from the typical variety by its smaller, pear-shaped fruits with a "dirty

yellow " colour . He named this variety *Z. antillarum* var. *gonzalezii* . More recent workers have not considered this form distinctive enough to maintain it as a distinct variety .

= = = Common names = = =

*Zombia antillarum* is called the " Zombie palm " or " Zombi palm " by horticulturists . Orator F. Cook coined the name " Haitian cactus palm " due to the spiny appearance of its trunk . In Haiti it is usually known as *latanye zombi* ( *latanier zombi* in French ; the zombie fan palm ) , or *latanye pikan* , ( *latanier piquant* in French , the spiny fan palm ) . It is also called *latanier savanne* or *latanier marron* . *Latanye* or *latanier* is a common term for fan palms in Haiti , so these names ( " savanna fan palm " and " wild fan palm " ) are not specific to this species ; they are also used for several species of *Coccothrinax* . In the Dominican Republic the species is called *guanito* or *guanillo* . These are diminutives of *guano* , which is used for several species of *Coccothrinax* and *Thrinax* . In his 1821 description of the species , Descourtilz used the name *latanier épineux* .

= = Distribution = =

*Zombia antillarum* is endemic to the island of Hispaniola . In northern Haiti it grows along the tributaries of the Trois Rivières between Gros @-@ Morne and Port @-@ de @-@ Paix , while in south it is found along the eastern edge of the Massif de la Hotte , between Miragoâne , Fond @-@ des @-@ Nègres and Fond @-@ des @-@ Blancs . The species also occurs in northwestern parts of the Dominican Republic , between Dajabón , Jarabacoa , the Sierra de Yamasá , Puerto Plata and Gaspar Hernández . It grows in dry hilly regions at low elevation , usually on slopes and ridges but is generally absent from the valley bottoms . In the Dominican Republic it is found from sea level up to 450 metres ( 1 @,@ 480 ft ) above sea level . *Zombia antillarum* is associated with serpentine soils , but is also found on calcareous soils . In Haiti , *Z. antillarum* grows in association with a variety of other palms , including *Coccothrinax argentea* , *Bactris plumeriana* , *Roystonea borinquena* , *Sabal causiarum* and *S. domingensis* . In the Dominican Republic it grows in association with *Pinus occidentalis* , *Calyptronoma rivalis* , *R. borinquena* , *S. domingensis* , *Copernicia berteriana* and *C. argentea* .

= = = Conservation status = = =

Although listed as " not threatened " in the 2006 IUCN Red List , a 2007 review of the status of West Indian palms classified *Zombia antillarum* as vulnerable based on a projected loss of 10 % of the population over the next century . In Haiti , the species is threatened by habitat destruction when land is cleared for agriculture . Seedlings can also be destroyed when they are browsed by livestock .

= = Uses = =

The plant is a popular ornamental , and is valued for its unusual appearance , low maintenance requirements , small stature and salt tolerance , and is recommended for low @-@ maintenance landscaping in South Florida . Leaves of *Z. antillarum* are used to weave hats and make brooms and the seeds , which have a protein content of 2 @.@ 8 ? 4 @.@ 9 % , are used to feed pigs . South of Sabanaeta in the Dominican Republic the petioles are reportedly " used to mix manioc flour for making cassava bread . "

In 1821 Michel Étienne Descourtilz reported that the wood was used for snuff boxes and tobacco cases , that the kernel of the seed was used to treat scurvy , and that the sap had been used by Carib Amerindians " for its powerful properties " .

Fabienne Boncy Taylor and Joel C. Timyan explored the connection between the " zombie palm " and beliefs about zombies . They found that oil extracted from the seeds has been described as a " sense @-@ activator " by one ethnographic source and can be used to " awaken " a zombie , and

that a dwelling with thatch made from the leaves of the plant could prevent zombies from being used to spy on its occupants . Other sources , however , were reportedly unaware of this these uses . Taylor and Timyan concluded that

we were able to find a link , albeit weak , between the name Zombia and Haitian culture , even though we could not verify that this species is typically associated with zombies .