

Yucca

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Yucca is a genus of perennial shrubs and trees in the family Asparagaceae, subfamily Agavoideae.^[2] Its 40-50 species are notable for their rosettes of evergreen, tough, sword-shaped leaves and large terminal panicles of white or whitish flowers. They are native to the hot and dry (arid) parts of North America, Central America, South America, and the Caribbean. Early reports of the species were confused with the cassava (*Manihot esculenta*).^[3] Consequently, Linnaeus mistakenly derived the generic name from the Carib word for the latter, *yuca* (spelt with a single "c").^[4] It is also colloquially known in the Midwest United States as "ghosts in the graveyard", as it is commonly found growing in rural graveyards and when in bloom the flowers appear as floating apparitions.

Contents

- 1 Distribution
- 2 Ecology
- 3 Uses
- 4 Cultivation
- 5 Symbolism
- 6 Species
- 7 Taxonomic arrangement
- 8 Cultivars
- 9 Gallery
- 10 References
- 11 External links

Distribution

The natural distribution range of the genus *Yucca* (49 species and 24 subspecies) covers a vast area of North and Central America. From Baja California in the west, northwards into the southwestern United States, through the drier central states as far north as Alberta in Canada (*Yucca glauca* ssp. *albertana*), and moving east along the Gulf of Mexico, and then north again, through the Atlantic coastal and inland neighbouring states. To the south, the genus is represented throughout Mexico and extends into Guatemala (*Yucca guatemalensis*). Yuccas have adapted to an equally vast range of climatic and ecological conditions. They are to be found in rocky deserts and badlands, in prairies and grassland, in mountainous regions, in light woodland, in coastal sands (*Yucca filamentosa*), and even in subtropical and semitemperate zones, although



Yucca filamentosa in New Zealand

Scientific classification

Kingdom:	Plantae
<i>Clade</i> :	Angiosperms
<i>Clade</i> :	Monocots
Order:	Asparagales
Family:	Asparagaceae
Subfamily:	Agavoideae
Genus:	<i>Yucca</i>
	L.

Species

See text.

Synonyms

Clistoyucca (Engelm.) Trel.
Samuela Trel.
Sarcoyucca (Engelm.) Lindling.^[1]

these are generally arid to semiarid.

Ecology

Yuccas have a very specialized, mutualistic pollination system, being pollinated by yucca moths (family Prodoxidae); the insect purposefully transfers the pollen from the stamens of one plant to the stigma of another, and at the same time lays an egg in the flower; the moth larva then feeds on some of the developing seeds, always leaving enough seed to perpetuate the species. Yucca species are the host plants for the caterpillars of the yucca giant-skipper (*Megathymus yuccae*),^[5] ursine giant-skipper (*Megathymus ursus*),^[6] and Strecker's giant-skipper (*Megathymus streckeri*).^[7]

Uses

Yuccas are widely grown as ornamental plants in gardens. Many species also bear edible parts, including fruits, seeds, flowers, flowering stems,^[8] and more rarely roots. References to yucca root as food often stem from confusion with the similarly pronounced, but botanically unrelated, yuca, also called cassava (*Manihot esculenta*). Roots of soaptree yucca (*Yucca elata*) are high in saponins and are used as a shampoo in Native American rituals. Dried yucca leaves and trunk fibers have a low ignition temperature, making the plant desirable for use in starting fires via friction.^[9] In rural Appalachian areas, species such as *Yucca filamentosa* are referred to as "meat hangers". The tough, fibrous leaves with their sharp-spined tips were used to puncture meat and knotted to form a loop with which to hang meat for salt curing or in smoke houses.

Cultivation

Yuccas are widely planted in the western US as a landscape plant. Most species generally tolerate heat and cold, requiring little care and low water. They offer a dramatic accent to a landscape design.

Joshua trees (*Yucca brevifolia*) are protected by law in some states. A permit is needed for wild collection. As a landscape plant, they can be killed by excessive water during their summer dormant phase, so are avoided by landscape contractors.

Symbolism

The "yucca flower" is the state flower of New Mexico. No species name is given in the citation.

Species

As of February 2012, the World Checklist of Selected Plant Families recognizes 49 species of *Yucca* and a number of hybrids:^[10]



Distribution of the capsular fruited species in southwest, midwest USA, Mexico's Baja California and Canada, overview



Large Joshua tree with thick trunk at Grapevine Springs Ranch, AZ

		<i>Yucca aloifolia</i> L. (Type species) (syn. <i>Yucca yucatana</i>)	Aloe yucca, Spanish bayonet
		<i>Yucca angustissima</i> Engelm. ex Trel. (including <i>Yucca kanabensis</i>)	Narrowleaf yucca, Spanish bayonet
		<i>Yucca arkansana</i> Trel.	
		<i>Yucca baccata</i> Torr. (including <i>Yucca thornberi</i>)	Banana yucca, datil
		<i>Yucca baileyi</i> ined. (syn. <i>Yucca standleyi</i> Wooton & Standl.)	
		<i>Yucca brevifolia</i> Engelm.	Joshua tree
		<i>Yucca campestris</i> McKelvey	
		<i>Yucca capensis</i> L.W.Lenz	
		<i>Yucca carnerosana</i> (Trel.) McKelvey	
		<i>Yucca cernua</i> E.L.Keith	
		<i>Yucca coahuilensis</i> Matuda & I.L.Pina	
		<i>Yucca constricta</i> Buckley	Buckley's yucca
		<i>Yucca decipiens</i> Trel.	Palma China
		<i>Yucca declinata</i> Laferr.	
		<i>Yucca de-smetiana</i> Baker	



Yucca elata (Engelm.) Engelm.

Soaptree yucca

Yucca endlichiana Trel.

Yucca faxoniana Sarg. (syn. *Yucca torreyi*)

Torrey yucca



Yucca filamentosa L.

Spoonleaf yucca, Filament yucca, or Adam's Needle



Yucca filifera Chabaud

Palma Chuna yucca



Yucca flaccida Haw.

Flaccid leaf yucca



Yucca gigantea Lem. (syn. *Yucca guatemalensis*)

Spineless yucca



Yucca glauca Nutt.

Great Plains yucca

Yucca gloriosa L. (including *Yucca recurvifolia*)

Moundlily yucca, Adam's needle, Spanish dagger

Yucca grandiflora Gentry

Sahuiliquei yucca

Yucca harrimaniae Trel. (syn. *Yucca nana*)

Harriman's yucca

Yucca intermedia McKelvey

Intermediate yucca

Yucca jaliscensis (Trel.) Trel.

Izote

Yucca lacandonica Gómez Pompa & J.Valdés

Tropical yucca

Yucca linearifolia Clary



Yucca luminosa (syn. *Yucca rigida*)

Blue yucca

Yucca madrensis Gentry

Soco yucca

Yucca mixtecana García-Mend.

Yucca necopina Shinners

Yucca neomexicana Wooton & Standl.



Yucca pallida McKelvey

Pale yucca

Yucca periculosa Baker

Izote

Yucca potosina Rzed.

Yucca queretaroensis Piña Luján

Yucca reverchonii Trel.



Yucca rostrata Engelm. ex Trel.

Beaked yucca, Big Bend yucca



Yucca rupicola Scheele

Texas yucca, or twist-leaf yucca



Yucca schidigera Roezl ex Ortgies

Mojave yucca



Yucca × *schottii*

Hoary yucca or mountain yucca



Yucca sterilis (Neese & S.L.Welsh)
S.L.Welsh & L.C.Higgins



Yucca tenuistyla Trel.



Yucca thompsoniana Trel.

Thompson's yucca

		<i>Yucca treculiana</i> Carrière	Texas bayonet, Trecul's yucca
		<i>Yucca utahensis</i> McKelvey	
		<i>Yucca valida</i> Brandegee	Datilillo

A number of other species previously classified in *Yucca* are now classified in the genera *Dasyilirion*, *Furcraea*, *Hesperaloe*, *Hesperoyucca*, and *Nolina*.

Taxonomic arrangement

- Section *Yucca* formerly *Sarcocarpa* Engelm.
 - Series Faxonianae Hochstätter
 - *Yucca carnerosana* (Trel.) McKelvey
 - *Yucca faxoniana* (Trel.) Sarg.
 - Series *Baccatae* Hochstätter
 - *Yucca baccata* Torr.
 - *Yucca baccata* Torr. ssp. *baccata*
 - *Yucca baccata* Torr. ssp. *vespertina* (McKelvey) Hochstätter
 - *Yucca baccata* Torr. ssp. *thornberi* (McKelvey) Hochstätter
 - *Yucca confinis* McKelvey
 - *Yucca endlichiana* Trel.
 - *Yucca arizonica* McKelvey
 - Series *Treculianae* Hochstätter
 - *Yucca grandiflora* Gentry
 - *Yucca declinata* Laferr.
 - *Yucca treculiana* Carrière
 - *Yucca torreyi* Shafer
 - *Yucca schidgera* Roezl ex Ortgies
 - *Yucca schottii* Engelm.
 - *Yucca capensis* Lenz
 - *Yucca jaliscensis* Trel.
 - *Yucca periculosa* Baker
 - *Yucca mixteca* Garcia-Mend.
 - *Yucca decipiens* Trel.
 - *Yucca valida* Brandegee
 - *Yucca potosina* Rzed.
 - *Yucca filifera* Chabaud
 - Series *Gloriosae* Hochstätter
 - *Yucca gloriosa* L.
 - *Yucca recurvifolia* Salisb.
 - Series *Yucca*
 - *Yucca madrensis* Gentry
 - *Yucca linearifolia* Clary
 - *Yucca elephantipes* Regel
 - *Yucca lacandonica* Gomez-Pompa & Valdes
 - *Yucca aloifolia* L.
 - *Yucca yucatana* Engelm.
- Section *Clistocarpa* Engelm.
 - *Yucca brevifolia* Engelm.)
 - *Yucca brevifolia* Engelm. ssp. *brevifolia*

- *Yucca brevifolia* Engelm. ssp. *jaegeriana* (McKelvey) Hochstätter
 - *Yucca brevifolia* Engelm. ssp. *herbertii* (Webber) Hochstätter
- Section *Chaenocarpa* Engelm.
 - Series *Filamentosae* Hochstätter
 - *Yucca filamentosa* L.
 - *Yucca filamentosa* L. ssp. *filamentosa*
 - *Yucca filamentosa* L. ssp. *smalliana* (Fernald) Hochstätter
 - *Yucca filamentosa* L. ssp. *concava* (Haw.) Hochstätter
 - *Yucca flaccida* Haw.
 - Series *Rupicolae* Hochstätter
 - *Yucca cernua* Keith
 - *Yucca pallida* McKelvey
 - *Yucca queretaroensis* Pina Lujan
 - *Yucca reverchonii* Trel.
 - *Yucca rigida* (Engelm.) Trel.
 - *Yucca rostrata* Engelm. ex Trel.
 - *Yucca rupicola* Scheele
 - *Yucca thompsoniana* Trel.
 - Series *Harrimaniae* Hochstätter
 - *Yucca harrimaniae* Trel.
 - *Yucca harrimaniae* Trel. ssp. *harrimaniae*
 - *Yucca harrimaniae* Trel. ssp. *neomexicana* (Wooton & Standl.) Hochstätter
 - *Yucca harrimaniae* Trel. ssp. *sterilis* (Neese & Welsh) Hochstätter
 - *Yucca harrimaniae* Trel. ssp. *gilbertiana* (Trel.) Hochstätter
 - *Yucca nana* Hochstätter
 - Series *Glaucæ* (McKelvey) Hochstätter
 - *Yucca angustissima* Engelm. ex Trel.
 - *Yucca angustissima* Engelm. ex Trel. ssp. *angustissima*
 - *Yucca angustissima* Engelm. ex Trel. ssp. *toftiae* (Welsh) Hochstätter
 - *Yucca angustissima* Engelm. ex Trel. ssp. *kanabensis* (McKelvey) Hochstätter
 - *Yucca angustissima* Engelm. ex Trel. ssp. *avia* (Reveal) Hochstätter
 - *Yucca baileyi* Wooton & Standl.
 - *Yucca baileyi* Wooton & Standl. ssp. *baileyi*
 - *Yucca baileyi* Wooton & Standl. ssp. *intermedia* (McKelvey) Hochstätter
 - *Yucca coahuilensis* Matuda & Pinja Lujan
 - *Yucca elata* Engelm.
 - *Yucca elata* Engelm. ssp. *elata*
 - *Yucca elata* Engelm. ssp. *utahensis* (McKelvey) Hochstätter
 - *Yucca elata* Engelm. ssp. *verdiensis* (McKelvey) Hochstätter
 - *Yucca glauca* Nutt.
 - *Yucca glauca* Nutt. ssp. *glauca*
 - *Yucca glauca* Nutt. ssp. *stricta* (Sims) Hochstätter
 - *Yucca glauca* Nutt. ssp. *albertana* Hochstätter
 - *Yucca campestris* McKelvey
 - *Yucca constricta* Buckley
 - *Yucca arkansana* Trel.
 - *Yucca arkansana* Trel. ssp. *arkansana*
 - *Yucca arkansana* Trel. ssp. *louisianensis* (Trel.) Hochstätter
 - *Yucca arkansana* Trel. ssp. *freemanni* (Shinners) Hochstätter
- Section *Hesperoyucca* Engelm.

- (Treated as a separate genus *Hesperoyucca* by some sources.)
 - *Yucca whipplei* Torr.
 - *Yucca whipplei* Torr. ssp. *whipplei*
 - *Yucca whipplei* Torr. ssp. *caespitosa* (Jones) Haines
 - *Yucca whipplei* Torr. ssp. *intermedia* Haines
 - *Yucca whipplei* Torr. ssp. *percursa* Haines
 - *Yucca whipplei* Torr. ssp. *newberryi* (McKelvey) Hochstätter
 - *Yucca whipplei* Torr. ssp. *eremica* Epling & Haines

Cultivars

In the years from 1897 to 1907, Carl Ludwig Sprenger created and named 122 *Yucca* hybrids.

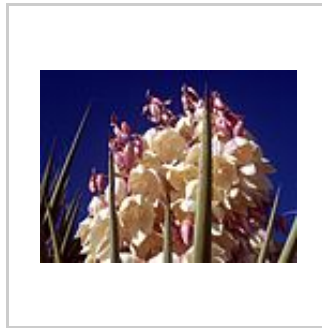
Gallery



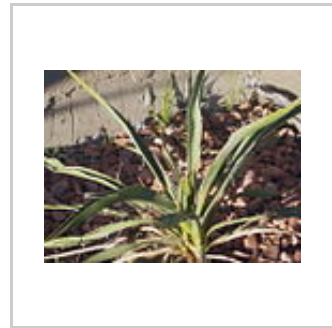
Joshua trees (*Yucca brevifolia*), growing in the Mojave Desert



Unknown species near Orosí, Costa Rica



Yucca near Carlsbad Caverns National Park in New Mexico



Yucca harrimaniae also known as Harriman's yucca



Yucca faxoniana in Texas, with mature fruits



Yucca schidigera in Nevada, in full bloom

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External links

- Yucca species and their Common names - Fritz Hochstätter (<http://www.yuccaagavaceae.com/species.html>)
- UVSC Herbarium - Yucca (<http://herbarium.uvsc.edu/Virtual/search.asp?s=genus&p=1&n=15751&t=Yucca>)
- New Mexico Statutes and Court Rules: State Flower ([http://nxt.ella.net/NXT/gateway.dll?f=templates\\$fn=default.htm\\$vid=nm:all](http://nxt.ella.net/NXT/gateway.dll?f=templates$fn=default.htm$vid=nm:all))

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Categories: Yucca | Asparagaceae genera | Plants and pollinators | North American desert flora

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