

Holarrhena floribunda

(G.Don.) Dur.& Schinz

Apocynaceae

LOCAL NAMES

English (false rubber tree)

BOTANIC DESCRIPTION

Holarrhena floribunda is a shrub to medium sized tree, 4.5-15 m high.

Leaves shining, mostly ovate-acuminate, or ovate-lanceolate, 5-18 cm long and 2-8 cm broad with 6-12 pairs of lateral nerves.

Flowers white, scented and in almost umbel-like inflorescences; corolla-tube 5-9 mm long and lobes 3.5-8 mm and overlapping to the right. Anthers fertile to the base.

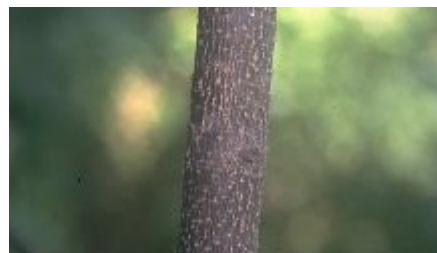
Paired narrowly cylindrical fruiting follicles, 30-60 cm, with seeds having apical tufts of hair.

Two varieties are recognized; var. *floribunda* with glabrous or almost glabrous leaves even when young and var. *tomentella* with densely pubescent leaves. The latter is common in the Sudan and Gambia.

The generic epithet *Holarrhena* is derived from Greek meaning complete male, whereas the specific epithet refers to its prolific flowering trait.

BIOLOGY

H. floribunda is self pollinating (hermaphroditic).



Holarrhena floribunda bark (Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)



Holarrhena floribunda foliage and flowers. (Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)



(Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)

ECOLOGY

Occurs in relic deciduous, closed woodland forests, sometimes in fringing and riverine forest and on inselbergs in northern guinea savanna.

DOCUMENTED SPECIES DISTRIBUTION

Native: Cameroon, Democratic Republic of Congo, Gambia, Ghana, Liberia, Mali, Nigeria, Sierra Leone, Togo

Exotic:



The map above shows countries where the species has been planted. It does neither suggest that the species can be planted in every ecological zone within that country, nor that the species can not be planted in other countries than those depicted. Since some tree species are invasive, you need to follow biosafety procedures that apply to your planting site.

PRODUCTS

Timber: Timber widely used to construct granaries or cribs in Benin. Its white wood is resistant to attack by *Prostephanus truncatus*. *H. floribunda* is considered the best for carving native stools.

Latex or rubber: A rubber like product obtained from this plant is used to adulterate genuine rubber.

Poison: Most members of the family Apocynaceae are poisonous, therefore *H. floribunda* material should be handled carefully especially for medicinal purposes.

Medicine: Stem bark of *H. floribunda* is used in traditional medicine to treat malaria, dysentery, fever, female sterility, skin infections venereal diseases and snake bites. In Nigeria, convulsion, especially in children, is managed by traditional healers employing leaf extracts of *H. floribunda*. Fractions containing saponins, polar steroidal glycosides, steroidal glycosides and alkaloids exhibited some antibacterial activity against *Escherichia coli*, *Bacillus subtilis* and antifungal activity against *Candida albicans*. The saponin fraction markedly inhibited growth of *Aspergillus niger*. Conessine, an alkaloid from stem and root bark of *H. floribunda*, has been used as an amoebicide antidyenteric and febrifuge.

SERVICES

Ornamental: It flowers prolifically and can therefore be an ideal ornamental tree.

PESTS AND DISEASES

The larvae of *Umbrasia epimethea* and *Bunaea alcinoe* seriously defoliate *H. floribunda* in Nigeria. *U. epimethea* appears restricted to *H. floribunda*.

FURTHER READNG

Abbiw D. 1990. Useful plants of Ghana. Intermediate Technology Publications and the Royal Botanical Gardens, Kew.

Akah PA. et al. 1997. Experimental study of the anticonvulsant plants used for treatment of infantile convulsion in Nigeria. Brain Research Bulletin. 44(5): 611-613.

Akanbi MO. 1973. Comparing two Saturniid defoliators of *Holarrhena floribunda* and *Ekebergia senegalensis*, respectively, with notes on their natural enemies. Journal of Natural History. 7(3): 307-318.

Chukwurah BKC. 1997. Anti-microbial activity of *Holarrhena floribunda* stem bark ethanol extract. Fitoterapia. 68(2): 180-181.

Kossou DK. 1992. The sensitivity of wood used for the construction of traditional granaries to attack by *Prostephanus truncatus* (Horn) (Coleoptera: Bostrichidae). Insect Science and its Application. 13(3): 435-439.

Levy O et al. 1990. Cultivation of *Holarrhena floribunda* for conessine production in Burkina Faso. International Journal of Crude Drug Research. 28(4): 285-295.

SUGGESTED CITATION

Orwa C, Mutua A , Kindt R , Jamnadass R, Simons A. 2009. Agroforestry Database:a tree reference and selection guide version 4.0 (<http://www.worldagroforestry.org/af/treedb/>)