Baillonella toxisperma

Pierre

Sapotaceae

LOCAL NAMES
English (African Pearwood,Djave Nut)

BOTANIC DESCRIPTION
Baillonella toxisperma is a very large and graceful tree with a straight cylindrical bole reaching 45-60 m in height and up to 5 m in diameter, with some butt swelling in old trees. Crown parasol, sometimes tubular, very wide, consisting of very large ramified, sinuous and spreading branches closely grouped at the top. It is one of the largest trees to be found in the Congo Basin.

Leaves simple, entire, grouped into rosettes at the extremities of the twigs. Petiole to 4 cm long, frail, glabrous. Blade oblanceolate, 20-30 cm x 6-10 cm, apex rounded and brusquely acuminate, base cuneiform, midrib thick, prominent beneath.

Flowers fairly large, green, in dense fascicles at the end of twigs, pubescent, long-pedicillate.

Fruits large, spherical berries, about 6-7 cm in diameter, grey-green; pulp soft, yellowish with a strong odour, enclosing 1-2 ellipsoid seeds; integument hard, thin and shiny with a scar occupying most of the ventral surface.

Bark dark reddish brown, rough, profoundly cracked longitudinally and very regularly; inner layer pink-yellow, dotted with red-white, fibrous, hard; exudes white, sticky latex, not very abundant.

BIOLOGY
Moabi does not flower until it is 50-70 years and fruits only once every three years, making regeneration very fragile. Regular fruit production doesn't occur until the tree is 90-100 years old. Fruiting occurs from June to July in Cameroon. The seeds are dispersed essentially by elephants as they eat the fruits and deposit the seeds elsewhere; wild pigs and porcupines also eat and help disperse the seeds.

ECOLOGY
The monotypic genus Baillonella is endemic to the Guineo-Congolian region. B. toxisperma is found only in primary and old secondary equatorial evergreen rainforests of Central and West Africa, often in small patches on dry or moist soils. It is a shade tolerant species.

Associated species include Gilbertiodendron dewevrei, Pericopsis elata, Baillonella toxisperma, Oddoniodendron micranthum and Afrostyrax lepidophyllus.

BIOPHYSICAL LIMITS
Altitude: 200–800 m

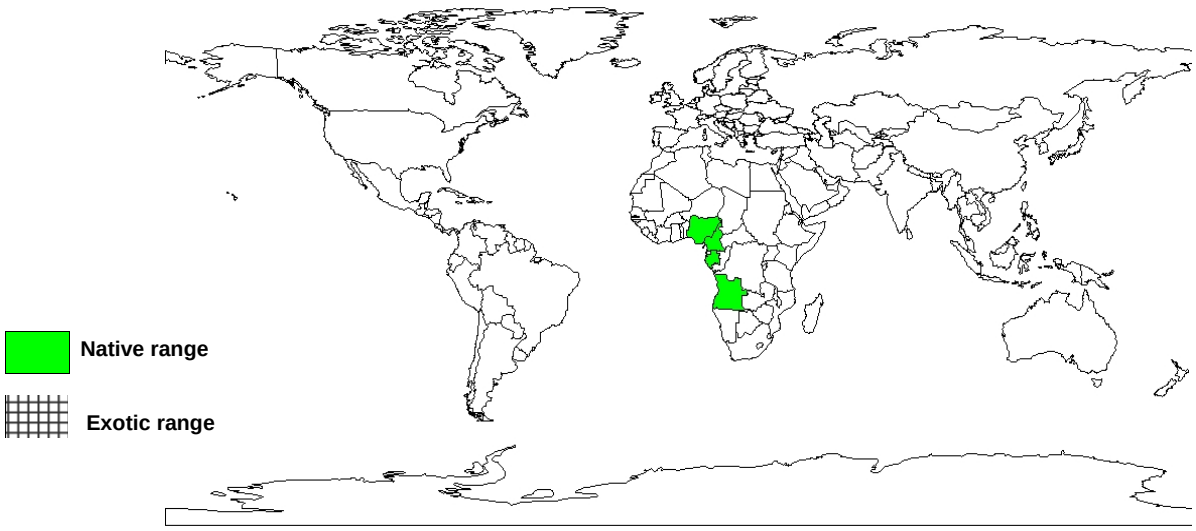
Temperature: 23 - 26ºC
- mean monthly minimum of 18° C
- mean monthly maximum of 27° C

Rainfall: 1,500 - 2,000 mm

Soil type: requires porous red ferralitic clay, and tolerates soils poor in nutrients and fragile.

DOCUMENTED SPECIES DISTRIBUTION

Native: Angola, Cameroon, Democratic Republic of Congo, Equatorial Guinea, Gabon, Nigeria
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
Food: The fruits of B. toxisperma are edible. Seeds from the fruit are used to make karité oil, which is used in cooking and eaten as butter; and is a consequent source of income for the villagers. In the larger cities in Cameroon, karité oil can be worth as much as US$ 12 per litre.

Timber: B. toxisperma is heavily exploited as a commercial timber for export earnings, particularly in Cameroon and Gabon. It is used for furniture, cabinet work, decorative flooring, turnery and carving, decorative veneers, joinery and store fittings. The wood texture is fine and even; grain straight, sometimes wavy; has an attractive figure; heartwood is rated as very durable, resistant to termite attack and marine borers.

Lipids: The edible oil from the seed is rich in palmitic acid, close to the oil of Shea tree and is highly regarded and used in cosmetics (hair and skin) and sells double the price of other plant oils.

Medicine: The oil/butter admixture with other plant products is used to produce embrocations, which are used to treat skin inflammations or joint pains. Bark extracts can be used as a mouthwash to reduce pain, and as an enema for groin abscesses, remedy for dental and back problems, treat infertility and to prepare women for childbirth; powder made from the bark helps the Baka pigmies become invisible for elephant hunting.

Forage: Elephants and other forest mammals eat the fruits of the species.

SERVICES
Moabi is culturally important to the Baka pigmies who use it as benchmarks for direction in forests.

Caution: The pulp and the oil from the seed is edible yet the residue left after grinding and heating the seed to extract the oil is toxic, hence the specific name. Dust from timber may affect mucous membranes.

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SUGGESTED CITATION

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