Diospyros mespiliformis Hochst. [family EBENACEAE]

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Useful Plants of West Tropical Africa

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Names
Diospyros mespiliformis Hochst. [family EBENACEAE]

Common names
English ebony; West African ebony; swamp ebony; monkey guava; persimmon (The Gambia, Tattersall). French ebénier de l'Ouest Africain; plaqueminier (Bouquiaux); kaki de brousse (Bailleul). **SENEGAL**: *BADYARA* mãnkãnk (JB) *BASARI* a-gâka (K&A) a-ngãnga (JB) a-nkãnka (JB) *BEDIK* ã-ganga (after K&A, JB) ga-nganga (FG&G) *FULA-PULAAR (Senegal)* kuku (JB) kukudAé (K&A; JB) kukui (K&A; JB) kukuo (K&A; JB) kuuku (K&A) nèlbé, nèlbi (K&A; JB) pomponi (JB) tolé (JB) *TUKULOR* kukui (JB; K&A) kukuńé (K&A) kukuo (K&A) kuuku (K&A) nèlbé, nèlbi (K&A; JB) vèndu dièngа (JB) *KONYAGI* ngang (JB) nkank (JB) *MANDING-BAMBARA* kukuo (JB) sunsun (K&A; JB) sunzun (JB) susu (JB) *MANDINKA* kukuo (K&A) *MANINKA* dabakala sunsun (K&A; JB) diombo (JB) sana sumsum (K&A) sana sunsu (JB) ' *SOCE* ' kukuo (JB) *NON* gaholom (auctt.) *SERER* ken (K&A) ńâčiké (K&A after Aub.) nem (K&A) nen (K&A) nèn (JB) *SONINKE-SARAKOLE* dôba (K&A) *WOLOF* alom, alôm, alum (auctt.) doki (auctt.) kalum (K&A) **THE GAMBIA**: *FULA-PULAAR (The* Gambia) nelberi (DAP) *MANDING-MANDINKA* kukuo (Hopkinson; ST) kukuwo (Hopkinson; DAP) *WOLOF* alom (DAP) halom (ST) **GUINEA**: *BASARI* a-ngángà (FG&G) *KONYAGI* a-ngank (FG&G) *MANDING-MANINKA* dabakala-sunsu (CHOP; FB) *SUSU* sunsu (JMD) **MALI**: *DOGON* alugíle (CG) alukile (Aub.; FB) *FULA-PULAAR (Mali)* pupui (Aub.) *MANDING-BAMBARA* sunsu (A.Chev.) sunsun (auctt.) *MANINKA* dabakala-sunsu (CHOP) *SONGHAI* dué (A.Chev.; Aub.) tokoye (Aub.) *TAMACHEK* kania (Aub.) **UPPER VOLTA**: *BOBO* kònon (Le Bris & Prost) *DAGAARI* gâ (K&B) gaa (GM) *FULA-FULFULDE (Upper* Volta) gagaahi (K&T) ganaahi (pl. -aaje) (K&T) nelbe (K&T) nelbi (K&T) *GRUSI* gẽá (pl. géesè) (GM) *GURMA* gaabu (GM) *GYORE* gãaká (pl. gãahi) (GM) *HAUSA* kagnia (K&B) kania (K&B) *KIRMA* onfra (K&B) *KURUMBA* akiria (Prost) *MANDING-BAMBARA* sunsu(-n) (K&B) *DYULA* sunsu(-n) (K&B) *MOORE* gãaka (pl. gãase) (auctt.) *SAMO (Sembla)* tyïmī (Prost) *SENUFO* sunsu(-n) (Aub.; K&B) *SONGHAI-ZARMA* tokoye (K&B) **IVORY COAST**: *AKAN-BRONG* komo (Aub.; E&A) *BAULE* bablé gualé (auctt.) blaguigole (K&B) kimi (B&D) *DAGAARI (Wule)* ga (Sidibe) *KULANGO* Won (K&B) ' *MAHO'* hamon sunsu (K&B) *MANDING-MANINKA* dabakala sunsu(-n) (Aub.; K&B) sana sunsun (K&B) sunzu(-n) (A&AA; B&D) *SENUFO* sunsu(-n) (Aub.; K&B) *SENUFO-DYIMINI* katio (K&B) *TAGWANA* siamboy (K&B) **GHANA**: *ADANGME* nσkσtʃo (FRI) *AKAN* kusibiri (DF; E&A) *AKAN-BRONG* komo (FRI; E&A) *TWI* okisibiri (aucct.) *BAULE* babliguale (FRI) *DAGAARI* ga (Gaisser) gaa (GM) kirirema (FRI) *DAGBANI* kirirema (FRI) *GA* kirirema (FRI) okúshibli (KD)

GBE-VHE dσkσ (FRI) keyi (FRI) *VHE (Kpando)* keke (FRI) *VHE* (Pecí) keyi-keyi (FRI) *GUANG-NCHUMBULU* kirirema (Coull; FRI) *KONKOMBA* legabσl (Gaisser; FRI) *KUSAL* gãaka (pl. gãase) (GM) *MAMPRULI* gaa (Arana & Swodesh) *MOORE* taka (AEK; FRI) *NANKANNI* ginga (Lynn fide FRI) gunya (Enti) *POLCI-BULI* gaabo (pl. gaasa) (GM) *SISAALA* kaliŋ (Blass) kaliŋ-nɛniŋ the fruit (Blass) **TOGO**: *BASSARI* bugau (Gaisser) gawelle (Gaisser) *GANGAM* gaa, gaam (pl. gande) (GM) *GBE-VHE* doko (Aub. FB) jeti (Metzger) yeti (Metzger) *KABRE* nangalo (Gaisser; FB) tangala the fruit (Gaisser) *MOBA* gaak (pl. gaati) (GM) *NAWDM* angalo (Gaisser) gaaga (pl. gaai) (GM) tingalo (Gaisser; FB) *SOMBA* kâbu (Aub.) *TEM (Tschaudjo)* ningalo (Metzer) tigbata the fruit (Metzer) tingalo (Metzer) *YORUBA-IFE (TOGO)* donko (Metzer) **DAHOMEY**: *BAATONUN* nuibu (Aub.; FB) uibu (Aub.) *BIERI* yesga (pl. yesi) (GM) *GBE-FON* kain (Aub.) kainui (Aub.) *GEN* djéti (Aub.) *GURMA* gaabu (GM) *POLCI-BULBA* ñisbo (pl. ñisto) (GM) *SOMBA* kâbu (Aub.) *TAMARI* pĩi (pl. mu) (GM) *TAYARI* kwĩhbu (pl. kwĩhna) (GM) *WAMA* kabu (pl. kana) (GM) *YOM* gaaλo (pl. gaai) (GM) garo (Aub.) **NIGER**: *ARABIC (Niger)* diokane (Aub.) djiokan (Aub.) djohan (Aub.) *GURMA* ogabu (Aub.) *HAUSA* kaéua (Aub.) kagnia (Aub.) kania (Leroux) kanyia (Aub.) *KANURI* burgum (Aub.) *SONGHAI* due (Aub.) tòkéy (pl. -à) (D&C) *SONGHAI-ZARMA* tokoye (Aub.) *TAMACHEK* kania (Aub.) *TEDA* burkum (Aub.) **NIGERIA**: *ARABIC* -SHUWA gughan (JMD) jukhan (JMD) jukhan (JMD; KO&S) *BADE* ferdamu (FWHM) *BIROM* jʊ̀rʊ́p the fruit (LB) tin ŋjʊ̀rʊ́p the tree (LB) *FULA-FULFULDE (Nigeria)* 6alchi (pl. 6aleje) = ebony wood; from 6ale: black (JMD) jalambani (JMD) jalambori (JMD) kaiwahi (JMD) kaiwua (pl. kaiwaje) (JMD) nelбi (auctt.) *GALAMBI* ìílá (Schuh) *GERA* δìwlá (Schuh) *GWARI* kuci (JMD) *HAUSA* kaiwa(-a) (auctt.) kánya (LB) kanyaà (auctt.) kanyan (auctt.) lubiya the fruit (JMD) maδi the dried fruit (JMD) moówàr bíriì = the monkey's favourite - the fruit (JMD; A&S) *IGALA* obiudu (JMD; KO&S) obiudu'adú = black kola; seems doubtfully correctly applied (H-Hansen; RB) *IGBO* akawayi probably a general term for several spp. (JMD) onye-koyi (BNO) onye-ōji = blackfellow, from oji: black (auctt.) *KAMBARI* kàrụ̀ndă tree and fruit (RB) mùu moorụ̀mdâ the fruit (RB) uuruụ̀ndâ (RB) *KANURI* bergem (auctt.) bẻrgẻm (C&H; A&S) burgum (JMD) *NGIZIM* (aB)vʊ́rδâmú (pl. -mámín) (Schuh) *NUPE* buswachi (auctt.) *YORUBA* igi dúdu = black wood (auctt.)kanran (auctt.)

Uses

leaf fruit Food: general fruit Drink: alcoholic, stimulant bark Medicines: generally healing sap Medicines: pain-killers leaf Medicines: ear treatments leaf bark Medicines: pulmonary troubles root-bark Medicines: skin, mucosae leaf Medicines: laxatives, etc. leaf bark Medicines: vermifuges root root-bark Medicines: abortifacients, ecbolics leaf root Medicines: fabrifuges leaf bark Medicines: leprosy leaf Medicines: antidotes (venomous stings, bites, etc.) wood Phytochemistry: glycosides, saponims, steroids Phytochemistry: tannins, astringents leaf root-bark fruit Phytochemistry: antibiotic, bacteristatic, fungistatic sawdust Phytochemistry: uricant leaf Agri-horticulture: fodder bark Agri-horticulture: veterinary medicine Agri-horticulture: bee/honey plants, insect plants Agri-horticulture: shade-trees bark Products: exudations-gums, resins, etc. timber Products: carpentry and related applications Products: pastimes-carving, musical instruments, games, toys, etc. Products: chew-sticks, etc. plant bark root Social: religion, superstitions, magic

Products

english: Persimmonfrench: Plaqueminierenglish: Ebonyenglish: West African ebonyenglish: Monkey guavafrench: Ebénier de l'Ouest Africainfrench: Kaki de brousseenglish: Swamp ebony

Description

A tree to 30 m high with a straight bole to over 2 m in girth, of drier northern borders of the humid rain-forest zone especially in wet situations, and in moist places of the guinean and soudanian woodlands throughout the West African Region, and generally widespread in such localities across Africa except in the Congo Basin.The tree is often kept unfelled when land is being cleared for farming for its shade and fruit are valued. It is thus to be found in a state of tending if not actually cultivated near villages. It is said to be a suitable species for reafforestation (7). Natural regeneration is good. Growth from seed is slow, and it does not transplant easily (10). Ebina people in Adamawa, Nigeria, claim that a tree planted in the compound prevents borers from eating away at cereal stalks (25) [? in granaries].The leaves are eaten in Niger (19). They are much relished by cattle, sheep and goats in Senegal (1) and are taken sometimes by domestic stock in N Nigeria (7). In Nigeria a leaf-infusion is taken as a mild laxative, and as a vermifuge (2, 26), for fever and dysentery, and is applied to wounds as a haemostatic (18, 29). Hausa chew the leaf, and fruit, or apply an infusion for gingivitis and toothache (28). The liquid from leaves boiled with 1–2 guinea-grains is drunk in Ghana as a cure for whooping-cough (Twi: nkoŋkoŋ) which will be effected in 1–2 days; the guinea-grains are held to irritate the membranes while the Diospyros makes the cure (Martinson fide 10, 11). The leaves are well-known in Ivory Coast-Upper Volta to be haemostatic and cicatrisant for which they are prepared as a dressing for cuts and wounds and to prevent infection; the sap is instilled into the ear for otitis; and a leaf-decoction is taken as a febrifuge and stimulant. A decoction of leafy twigs is taken in draught as a poison-antidote (5, 15). In Senegal the leaves are prescribed for serious illnesses such as pneumonia, infectious fevers, syphilis, leprosy and yaws (13, 14). Such reliance is placed on this drug-plant that it is usually prescribed alone. Leaves and fruit are used internally for

menorrhoea and dysenteriform diarrhoea, and externally for headaches, arthritis and dermal troubles (14). The use of the leaves, with the bark, husks of tamarind and guinea-corn gruel, as a leprosy remedy is recorded in N Nigeria (7, 26). Leaves in cold infusions are commonly taken in the soudanian region for dysentery, and a leaf-decoction by draught or as a wash for fevers (7).The freshly cut wood is light pinkish-brown, slightly darker to the centre. Blackening of the heart-wood develops only after felling and appears to depend on edaphic characters, trees from savanna situations blackening while those from more thickly forested areas do not. Blackening is possibly a pathological process and burying is said to accelerate it. In trees cut down and left to season, the sap-wood is quick to decay. The heart-wood is durable though attack by large boring beetles is reported. Colouration varies somewhat with brown and green streaks. It is one of the ebonies of commerce, but it does not have the uniform black colour of classical ebony (7, 10).It is hard, heavy and has a fine grain; dries rapidly but is inclined to distortion; strength is good, turning well but splits on nailing; it is moderately difficult to work and dulls tools quickly (17). It is used locally for tool-handles, gun-stocks, ploughs, hut-posts and rafters, combs, stools, walking-sticks, cudgels, carving and fancy goods, and for charcoal for cooking and for smoking fish (3, 4, 7, 10, 17, 20, 24). Tenda races of Senegal use the wood for chew-sticks (24), as well as the Bambara of Mali (Bazin fide 27). Saponin has been detected present (27).Sawdust of this species, as also of most Diospyros spp., causes dematitis after continuous contact. In Nigeria it is sometimes added to dog's food instead of sulphur to cure mange. Shavings of the wood with pods of Acacia nilotica (Linn.) Willd. (Leguminosae: Mimosoideae) and roots of Borassus (Palmae) are pounded in water and boiled for about two hours, after which the liquid is used in Nigeria to rinse the mouth for toothache. Sap from freshly felled trees, as also water from holes in the tree, or an infusion of the black heart-wood, are similarly used (2).The bark contains a dark-coloured gum which is used in Ghana to mend broken pottery (10). The bark of both trunk and roots have medicinal use in Senegal, as have the leaves, for serious illnesses (13, 14). In Ivory Coast-Upper Volta trunk and branch-bark is taken by draught and added to baths in leprosy treatment (15), and in Nigeria a bark-infusion is used to wash sores, ulcers, etc. (2) and root-bark for skin-eruptions, such as itch (7, 29). The whole root may also be used (18). In the soudanian region root-bark is an ingredient of abortifacient prescriptions (7). The bark is considered a veterinary medicine (29), especially for horses, given pulverised as an effective vermifuge, and also in fumigation burnt along with old rags, etc. as a cough remedy (7).The root, heated and powdered, is prepared in Ivory Coast-Upper Volta into tablets with salt and palm-oil which are administered for serious jaundice — the treatment causing vomiting and profuse diarrhoea (15). A root-decoction is taken as an anthelmintic and in cases of difficult childbirth (5, 15). In Tanganyika a root-decoction, with leaf-sap, is taken by draught for malaria and for scrofula (8).The fruit-pulp is sweet and edible. Material from Senegal is reported containing 3.1% proteins and total carbohydrates 33.9% fresh weight (14). The fruits are eaten in all parts of Africa and are made into fruit-juice drinks. They have a flavour of the persimmon, Diospyros kaki Linn. In some parts it is dried before use, and in N Nigeria the dried fruit is known as baro (Hausa). In SW Africa it is stored in this form as a reserve against food shortage. The Hausa prepare a kind of soft toffee (maδi) from the fruits, which along with some other similar edible fruits such as figs, dates, etc., are known as lubiya. In N Ghana the Grusi ferment the fruits to an alcoholic drink like mild palm-wine. In SW Africa a sort of 'brandy' is prepared from the fruit. (3, 4, 6, 7, 9, 10, 23, 30).The flowers are fragrant and visited by bees for nectar. Hives are often placed in the branches (7).The fruit-pulp is applied in Ivory Coast-Upper Volta to pottery to glaze and varnish it (15).The seeds are much relished in Uganda by baboons (22).Pharmacologically, plumbagin appears to be the principal drug present. This substance possesses anti-biotic, antihaemorrhagic and fungistatic properties, and is found in the root-bark to a concentration of 0.9% and but a trace in the leaves. Tannin, saponin and a substance probably identical to scopolamine are also present. Leaf-infusions have been shown to be pharmacologically active on Paramecium, fish and mice (14, 15, 18, 29). There is a high fluoride content (28).The plant is credited with magical attributes. In Niger at Maradi it is held to be the sacred tree of the village (16). In the Diébougou district of Ivory Coast the Earth-Goddess is said to reside in a stone deposited at the foot of the tree near the village, and the stone and tree are reverenced as the residence of the protective spirit of the community (21). The Fula and the Wolof of Senegal prescribe the roots in ritual invocations to chase away evil spirits, effect cures and to obtain good fortune (14), and also use the plant in a medico-magical treatment of psychoses (13). The Pulaar of N Nigeria seek good luck in hunting by making a paste of the bark with a ram's belly-fat which is rubbed on their hunting bows (12) — cf. D. chevalieri De Wild.

References

Note: while the English and French names of West African Ebony are botanically correct, foresters and the timber trade apply these names to Dalbergia melanoxylon Guill. & Perr. (Leguminosae: Papilionoideae).References:1. Adam, 1966, a. 2. Ainslie, 1937: sp. no. 137. 3. Aubréville, 1950: 442. 4. Aubréville, 1959: 3: 164. 5. Bouquet & Debray, 1974: 80. 6. Busson, 1965: 365. 7. Dalziel, 1937: 347–8. 8. Haerdi, 1964: 115. 9. Irvine, 1948: 265, 267. 10. Irvine, 1961: 580–3. 11. Irvine, s.d,a. 12. Jackson, 1973. 13. Kerharo & Adam, 1964, b: 438–9. 14. Kerharo & Adam, 1974: 399–401, with phytochemistry and pharmacology. 15. Kerharo & Bouquet, 1950: 175–6. 16. Leroux, 1948: 662.

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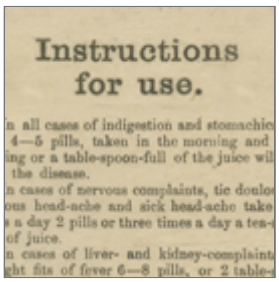
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n all cases of indigestion and stomachic
4—5 pills, taken in the morning and
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s a day 2 pills or three times a day a tea-
of juice.
n cases of liver- and kidney-complaint
ght fits of fever 6—8 pills, or 2 table-

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