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Since 2004, there has been a Namibian SEPASAL team, based at the National Botanical Research Institute of the Ministry of Agriculture which has been updating the information on Namibian species from Namibian and southern African literature and unpublished sources. By August 2007, over 700 Namibian species had been updated.

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Acacia ataxacantha DC. [1355]

Family: LEGUMINOSAE-MIMOSOIDEAE

Synonyms

None recorded

Vernacular names

Unspecified language Muluwa [1582] !Kung (Botswana) !hug/em [5093] !xo Bushmen //gani [5093]

(Botswana)

kaffer wag-'n-bietjie [1304], katnael [5488], rankroos [1304] [5083] [5087] [5098] [5121] Afrikaans (Namibia)

[5488], roosdoringakasia [5083], vlamdoring [5087] [5121] [5488], wag-'n-bietjie [5087]

rank wag-'n-bietjie [1120], vlamdoring [5082] Afrikaans (South

Africa)

vlamdoring [3045] Afrikaans (Southern

Africa)

Afrikaans (Zimbabwe) vlamdoring [5399] Barakwengo-Bushmen | gei-|gam [5087]

(Namibia)

English (Botswana) flame acacia [5093], flame thorn [5093]

English (Namibia) flame acacia [5087] [5098] [5118] [5488], flame-thorn [5083] [5087] [5088] [5121] [5488]

English (South Africa) flame thorn [5082]

English (Southern flame thorn [1120] [3045]

Africa)

English (Zimbabwe) flame acacia [5082] [5399] Gciriku (Namibia) mukoro [5087] [5098]

German (Namibia) Rosendornakazie [1304] [5083] [5087] [5098] [5121] [5488] Herero (Namibia) orueyo [5098], oruweyo [5121] [5488], orweyo [5083] [5091]

Herero (South Africa) oluejo [1120]

orueyo [<u>5098</u>], oruweyo [<u>5087</u>] Himba (Namibia) Jul'hoan (Namibia) !huglam!o!o [5083] [5088] [5101]

Kenya Mu-rangare [1582]

Kung Bushmen ! huglem! o! o [5087] [5098]

(Namibia)

Kwanyama (Namibia) enghono [1304] [5087] [5098], omunghono [1304] [5098]

Kxoe (Namibia) lgei-lgam [5083] Mbukushu (Namibia) mukoro [5098]

Ndebele (Zimbabwe) ulutatu [5399], umbambangwe [5399], umqaqawe [5399], uthathawu [5399]

Ndonga (Namibia) omudhilankono [5083] [5087] [5098], omukono [5098]

Norekau Bushmen

(Namibia)

! eng [<u>5083</u>] [<u>5087</u>]

Oshiwambo

(Namibia)

omukono [<u>5083</u>]

Rukwangali mukoro [5083] [5087] [5098] [5121]

(Namibia)

Rumanyo (Namibia) mukoro [5121]

SeTswana (Botswana) mogokatau [5093], mokgwa [5093], mokona [5093], mokuku [5093], mokuku [5093],

oluejo [<u>5093</u>]

Shambyu (Namibia) mukoro [5087] Shangaan (Zimbabwe) kato [5399]

Shona (Zimbabwe) muchanga [5399], mugowa [5399], mukakanyuro [5399], mukombonkunono [5399],

mukomborakombora [5399], musavamhanga [5399], rukato [5399]

Thimbukushu mukoro [5083] [5121], nanara [5083]

(Namibia)

Tonga (Zimbabwe) lubamfwe [5399], mugowa konono [5399], mukobonkunono [5399]

Tsonga (Southern muluwa [2795]

Africa)

Tswana (Namibia) mogogatau [5083]

Zulu (South Africa) uBobe [1120], uThathawe [1120]

Distribution

Plant origin	Continent	Region	Botanical country .
Native	Africa	East Tropical Africa	Kenya [1355] [1362], Tanzania [1355] [1362]
		Northeast Tropical Africa	Chad [1355], Sudan [3] [1305] [1355] [1362]
		South Tropical Africa	Angola [1305] [1355] [1362], Mozambique [3] [1355] [1362] [5480], Zambia [3] [5481], Zimbabwe [3] [1305] [1355] [1362] [2816] [5419]
		Southern Africa	Botswana [3] [1355] [1362] [5104], Caprivi Strip [5082] [5121], Namibia [1120] [1304] [1355] [1362] [1674] [5104] [5104], Natal [1120] [1362] [1674] [5104], Swaziland [1120] [1355] [1362] [1674] [5104] [5452], Transvaal [1120] [1362] [1674] [5104]
		West Tropical Africa	Benin [1355] [2816], Guinea [1355] [2816], Ivory Coast [1355], Liberia

[1355], Mali [1355], Niger [1355] [2816], Nigeria [1305] [1355] [2816], Senegal [3] [1305] [1355] [1362] [2816], Sierre Leone [1355] [2816], Togo [1355]

West-Central Tropical

Africa

Cameroon [1355], Central African Republic [1355]

[1362]

Assumed Native Africa West Tropical Africa Burkina [2816], Ghana

[2816], Guinea-Bissau [2816], Mauritania [2816]

Status Unknown Africa East Tropical Africa Uganda

South Tropical Africa Malawi

ISO countries: South Africa [1120] [1355] [1362] [1674] [5104]

Descriptors

Category	Descriptors and states
DESCRIPTION	Deciduous [5121]; Multistemmed [1120] [1674] [5399]; Terrestrial; Shrub [3] [1120] [1304] [1305] [1362] [1597] [1735] [2795] [3045] [5082] [5088] [5098] [5101] [5104] [5118] [5121] [5399] [5488]; Climber/Scrambler/Scandent [3] [1120] [1305] [1362] [3045] [5082] [5104] [5121] [5399]; Tree [1304] [1362] [1597] [2795] [3045] [5082] [5098] [5104] [5399] [5488]; Perennial [5104]; Thicket Forming [1674] [3045] [5121] [5399]; Thorny/Spiny - stems [1304] [2795] [3045] [5082] [5088] [5098] [5121] [5399] [5488]; Thorny/Spiny - leaves [5121] [5488]; Prickly - stems [1120] [1305] [1362] [1597] [1735] [5082] [5101]; Prickly - leaves [1362] [5101]; Plant Height 2-15 m [1362] [1597] [5104]; d.b.h. <= 10 cm [5399]
CLIMATE	Equatorial Humid [628] [883]; Not Frost Tolerant [1120]; Marked Dry Season [628] [883]; Tropical Summer Rains [628] [883]; Frost Tolerant [628] [883] [5399]; Subtropical, Hot and Arid [628] [883]; Mediterranean, Winter Rains [628] [883]; Annual Rainfall 200-2244 mm [883] [1523]; Dry Season Length 1-11 months [628] [883]
SOILS	Acid [5399]; Boulders/Rocky [3045] [5082] [5091]; Saline [1304]; Gravels/Stony [5121]; Sandy [1582] [5121] [5399]; Dry [1582] [5121]
HABITAT	Lowland [1120]; Forest [1120] [1305] [1362] [1674] [3045] [5118] [5399]; Woodland [3] [5121]; Shrubland/Bushland/Scrub [1120] [1305] [1582] [1674] [3045] [5082] [5399]; Grassland/Forb-Land [1305] [1674]; Wooded Grassland [3] [1362] [5082]; Ridges [3045]; Hillsides/Slopes [5082] [5121]; Outcrops/Kopjes/Inselbergs [5121]; Gullies [1120]; Physiognomically Mixed Vegetation [1582]; Dunes [5082] [5121]; Watercourses [3] [1120] [1362] [1582] [1674] [3045] [5121] [5399]; Non-Permanent Watercourses [3] [1305] [1674]; Pans [5082]; Plains [5121]; Altitude 100-1980 m a.s.l. [3] [5104]
PHYSIOLOGY	Root Nodules Present [144]; Drought Tolerant [1120]
WOOD PROPERTIES	Heartwood Red/Shades of Red [5399]; Durable [5399]; Sapwood White/Yellow [5399]
PRODUCTION AND VALUE	Wild Plants Utilised [5118]
SOURCES OF PLANTING MATERIAL	RBG Kew Seed Bank
FURTHER DATA	Dot Distribution Map [5399]; Botanical Illustration [1120] [1305] [5082] [5093] [5121] [5399] [5488]; Regional Distribution Map [3045] [5082]; Botanical Photograph [1120] [3045] [5088];

SOURCES Databases [5123] [5327]; Habit Illustration/Photograph [5082]; Use Related

Illustration/Photograph [2795]; Grid Map [5093] [5121] [5123]

SEPASAL DATASHEET All Data Transferred from SEPASAL Paper Files; Nomenclature Checked [2963]

STATUS

CHEMICAL Nutritional Analyses - leaves [5399]; Proteins - leaves [5399]

ANALYSES

Uses

Major use	Use group	Specific uses
FOOD	Exudates	resin [5098] [5121]; gum [5101]
ANIMAL FOOD	Aerial Parts	forage [1582]; browse [5121]
MATERIALS	Fibres	cord/string/twine, ropes [1582] [1782]; wood, brushes/brooms [1582]
	Cane etc.	
	Wood	wood, arrow shafts [1304] [5101]; wood, bows (weapons) [1782] [5091] [5121]; wood, arrows [5121]; wood, spears [5121]; defoliated stems/branches, wood, spears [5088]; defoliated stems/branches, wood, bows (weapons) [1304] [5101]; defoliated stems/branches, wood, arrows [1304]; wood, baskets [2795] [5399]; wood, tools [5399]; wood, tool handles [5399]
FUELS	Fuelwood	fire starters [1582]
SOCIAL USES	'Religious' Uses	roots, ritual/religion/magic [5399]
MEDICINES	Unspecified Medicinal Disorders	humans [2391]; roots, humans [5121]
	Digestive System Disorders	humans, stomach, gastric ulcers [2391]; roots, humans, stomach, constipation [5399]
	Infections/Infestations	humans, syphilis [1782]
	Pain	humans, teeth [1782]; roots, humans, abdomen, anodyne [5399]; roots, humans, chest, anodyne, oral ingestion [5098] [5101]; roots, humans, chest, oral ingestion
	Respiratory System Disorders	roots, humans, oral ingestion [5101]
ENVIRONMENTAL USES	Unspecified Environmental Uses	hedges [1120] [1782] [5121]; live fences [1782]
	Soil Improvers	live plant in situ, nitrogen fixers, nodulated plants [144]
	Boundaries/Barriers/Supports	s other types of boundaries/barriers/supports [5399]; animal barriers

Picture

None recorded

Notes

NOMENCLATURE/TAXONOMY

Name derivation:

"ataxacantha" a Greek word, meaning irregular thorns, referring to the thorns scattered along the branches [5488].

DISTRIBUTION

Africa:

Widepread in tropical and subtropical Africa from Senegal in the west to Sudan in the northeast and southwards to Namibia, Transvaal and KwaZulu-Natal. There is a disjunction in Tanzania and eastern Zambia [3] [1674] [5399] . *Namibia*:

Rare in Etosha, only a few shrubs occur in the sandveld area north of Namutoni [5488].

Zimbabwe:

A species of drier areas, widespread in Matabeleland, also found in the Zambezi valley and occasionally in the south eastern lowveld, where it is confined to riverine areas [5399].

RARITY/CONSERVATION

Namibia:

Assessed under IUCN categories (1994) as LRIc [5400].

DESCRIPTION

Habit:

Non-climbing [1305] [1362] [3045].

Height:

Up to 15 m [3] [1305] [1362] [1674].

Leaves:

5-12cm long, prickly or unarmed [1362].

Flowers:

Cream to white, 0.25-0.4 mm, pedicellate or appearing sessile, in spiciform racemes 4-8 cm long on peduncles 1-2.5 cm long [1362].

Height:

2-6(15) m [1597].

Armature:

Large hooked thorns, rose-like, scattered irregularly along branches [5121] [5488] .

Armature:

Purple brown thorns along branches [3045].

Armature:

Small, hooked thorns grow on the underside of the leaf midrib [5121] [5488].

37 11

Yellowish brown to pale grey, rough and slightly fissured [5488].

Branches:

Long and slender [1735].

Flowers:

In spikes towards tips of branches, cream [5121].

Fruits:

Flat, deep red to purplish-brown pod, with pointed tips, brittle, dehiscent [5121].

Habit:

May be semi-scandent shrub, with round outline, spreading and forming an impenetrable tangle almost down to ground level [1120].

Habit:

Scandent shrub or a non climbing shrub or tree [3] [1305] [1674].

Habit:

Sometimes climbing into or over other plants [5121].

Height:

3-15 m [<u>5104</u>].

Height:

Mostly up to 3 m, seldom higher [5121].

Height:

Up to 10 m [3] [1120] [1305] [1674] [5082].

Height:

3-6 m high [<u>1362</u>].

Height:

Up to 4 m [5098] [5488].

Leaves:

Large, with stalked, petiolar gland and hooks on the rachis [5121] [5488].

Leaves:

The foliage is dense and dark green [1120].

IDENTIFICATION

Closely related to A. macrostachya, from which it differs in having stalked petiolar glands, glabrous or subglabrous pods and seeds with small, circular areoles [1305].

In Natal, if seen without flowers or fruits, this species can be confused with A. brevispica. With the latter, however, the foliage is lighter in colour, the inflorescences are globose and the pods are not red [1120].

Resembles A. caffra, which has prickles in pairs at the base of the leaves, sessile petiolar glands and brownish pods [1305] [3045].

Resembles A. eriocarpum, a shrub or small tree from low-altitude bushveld and thicket in the Zambezi valley, which also has thorns scattered irregularly along the branches, and spicate inflorescences. It is distinguished by large leaflets and thinly textured pods that are densely covered in brownish, matted hairs [3045].

When not in flower or fruit, this species can be confused with A. schweinfurthii. A. ataxacantha has flowers in spikes and deep red pods before they fade to light brown, while A. schweinfurthii has flowers in balls and the green pod fades to a dark or medium brown. The leaflets of A. schweinfurthii are without stalks, so that the pairs look as though they form a solid band across the leaf, while the leaflets of A. ataxacantha are slightly sickle-shaped and have a minute stalk, stopping at the rachis and leaving a tiny gap, like a pinpoint of light, between the pair [5082] [5121] [5399].

ANIMAL FOOD - AERIAL PARTS

Forage:

One of the important forage species in mixed scrub [1582].

Browse:

Occasionally browsed [5121].

MATERIALS

Wood properties:

The wood is heavy (930 kg per cubic meter) with good durability, but is prone to splitting. The sapwood is wide and creamy white while the heartwood is deep brown red. It is said to be resistant to decay owing to gum deposits [5399].

MATERIALS - WOOD

Brushes/brooms:

Used for making brooms by Mbeere of Mbeere District Kenya [1582].

Baskets, tools, tool handles:

Due to the small size of the stems, the wood is used only for tools and tool handles and baskets [5399].

Baskets:

The plant is an important source of craft material in the northern part of South Africa, especially the Gazankulu and Venda, where strips of wood are commonly used to make several types of baskets, including a shallow winnowing basket (rihlelo) [2795] [5139].

Bows (weapons), defoliated stems/branches:

The Jul'hoansi in Kau-kauveld, Namibia use the branches to make assegai-shafts and bows [5101].

Spears, defoliated stems/branches:

Jul'hoansi hunters in Namibia use the straight branches to make spears [5088].

FUELS - FUELWOOD

Fire starters:

Wood used for making fire-sticks by Tsonga (Shangaan), S. Africa [1582].

SOCIAL USES - 'RELIGIOUS' USES

Roots, ritual/religion/magic:

The roots are used by some Shona traditional healers in Zimbabwe to protect infants from witchcraft [5399].

MEDICINES - DIGESTIVE SYSTEM DISORDERS

Roots, humans, stomach, constipation:

The roots are used by some Shona traditional healers in Zimbabwe against constipation [5399].

MEDICINES - PAIN

Roots, humans, abdomen, anodyne:

The roots are used by some Shona traditional healers in Zimbabwe against abdominal pains [5399].

MEDICINES - RESPIRATORY SYSTEM DISORDERS

Roots, humans, chest, oral ingestion:

The roots are boiled and the hot extract taken for chest ailments [5098] [5101].

ENVIRONMENTAL USES - BOUNDARIES/BARRIERS/SUPPORTS

Live fences:

Used in Sahel for fencing [1782].

Hedges:

Used in Sahel for hedging [1782].

Other types of boundaries/barriers/support:

A. ataxacantha was planted in parts of northern Zimbabwe as an effective barrier along drainage lines during the liberation war, where it still persists. [5399].

This species has horticultural potential as a hedge or barrier species [5121].

CHEMICAL ANALYSES - MISCELLANEOUS

Leaves, protein:

The leaves are moderately high in crude protein, 14-20% [5399].

CONSTRAINTS - MISCELLANEOUS

The gum is not highly valued and, therefore, is only collected occasionally [5088].

This species form an impenetrable barrier to animals and humans [5088].

CLIMATE

It occurs mainly in tropical climates with summer rainfall maxima. It does, to a small extent, border on equatorial humid climates and to a lesser a sub-tropical hot arid climates [628] [883].

RAINFALL

Sahel:

600-1000 mm per annum [1782].

Africa:

200 to 1200 mm per annum [1523].

Namibia:

Average 520 mm per annum [1304].

Mean annual rainfall ranges between 507 to 931 mm per year in the majority of the species range but in the more arid part of its distribution may reach 298 mm per year, and in the equatorial humid climate within its range may be up to 2244 mm per year [628] [883].

Length of dry season is most commonly 5-8 months but it ranges between 2.5 to 11 months, and in the equatorial humid climate none, or only one month may be dry. Rainfall distribution shows well marked summer maxima, with a winter dry season, except in the equatorial humid part of the range where rain is uniformly distributed [628] [883].

TEMPERATURE

Namibia:

1.7-40.6 °C [1304].

Frost months with mean daily minimum less than 0 °C is 0(-2). Months with absolute min. less than 0 °C is 0-6(11). Mean annual temperature is (11.5) 15.0-28.1 °C. Mean daily minimum of coldest month is (-4.3) 0.7-19.5 °C. Absolute minimum is (-13.7) -7.8 to 13.2 °C [628] [883] .

ALTITUDE

Kenya:

Range uncertain at 915m [1362].

1,100 m a.s.1 [1304].

Africa:

100-1520 m a.s.l. [3].

Southern Africa:

150-1980 m a.s.l. [5104].

Southern Africa:

Occurs in lower-lying areas in Transvaal and Swaziland [1120].

Zimbabwe:

Below 1200 m a.s.l. [5399].

TOPOGRAPHY/SITES

Namibia:

Mostly on sandy plains. In the northwest it occurs predominantly on hill slopes and river banks, sometimes on rocky outcrops; in the northeast, on dunes and along river banks, as well as on plains [5121].

Southern Africa:

Occurs among sand dunes and on rocky hillsides [5082].

Southern Africa:

Usually confined to watercourses and ravines in drier areas, but in higher rainfall zones it may be encountered as a normal bush constituent. It also favours forest margin situations [1120].

SOILS

Kalahari sand deposits [1582].

Namibia:

Salty sub-soil [<u>1304</u>].

Zimbabwe:

May have a preference for acidic soils. In Kalahari sand woodlands it is found on the redder sands higher up the catena, and not on the pale sands [5399].

VEGETATION

Riverine forest and thicket [1362].

South Africa:

Mixed scrub, riverine [1582].

Africa:

Occurs in riverine fringing vegetation, on forest margins, in forest clearings, as a component of mesophytic scrub

and thornveld or occasionally in open grassland [1305] [1674].

Southern Africa:

Occurs in open bush and jesse bush, in wooded grassland and on rocky hillsides [5082].

Southern Africa:

Occurs on rocky ridges and in forest margins and riverine bush [3045].

Zimbabwe:

Typical of the margins of jesse bush and dry forest [5399].

FLOWERING/FRUITING/SEED SET

Flowering, Namibia:

January to March [5488].

Flowering, Namibia:

November to April, with the main peak in February [5121].

Flowering, southern Africa:

January to February [5082].

Fruiting, Namibia:

December to June [5121].

Fruiting, southern Africa:

April to October [5082].

SEEDLING DEVELOPMENT

Growth rate after transferring into packets is slow initially and, though increasing later, the height of the plant at the end of the season is only likely to be $100-250 \text{ mm} [\underline{1120}]$.

VEGETATIVE GROWTH

Growth form:

Often forming dense impenetrable thickets [1674] [3045] [5121].

Growth rate:

Growth rate after transferring into packets is slow initially and, though increasing later, the height of the plant at the end of the season is only likely to be 100-250 mm [1120].

In Hwange National Park, Zimbabwe, it is killed back by severe frost, but often sprouts again from the base in the following season [5399].

CYTOLOGY

For the genus x = 13 (aneuploids, high polyploidy) [5150].

NITROGEN FIXATION/NODULATION

Listed as nodulated in Zimbabwe, (1974) [144].

PHYSIOLOGICAL TOLERANCES

Frost tolerance:

In Hwange National Park, Zimbabwe, it is killed back by severe frost, but often sprouts again from the base in the following season [5399].

ASSOCIATED INSECTS

Lepidoptera:

The butterfly Charaxes ethalion ethalion feeds on this plant [3045].

Lepidoptera:

The leaves are larval food for the butterfly Charaxes zoolina [5399].

PROPAGATION FROM SEED

Seeds soaked in hot water before planting [1120] [1582].

Seeds need to be soaked in hot water before sowing. Germination rate is from 5-68%. Seedlings appear from 3-14 days after sowing. Growth rate after transferring into packets is slow initially and, though increasing later the height of the plant at the end of the season is only likely to be 100-250 mm [1120].

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