

Tree factsheet

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Juniperus procera Hochst. ex Endlicher

editor of this page: Leo Goudzwaard

taxonomy	
author, year	Hochstett 1847
synonym	<i>Juniperus hochstetteri</i> , <i>Sabina procera</i>
family	Cupressaceae
Eng. Name	East African cedar, African pencil cedar
other names	cedar; thed (Ethiopia); mutarakwa, mtarakwa (Oost Afrika)
Dutch name	jeneverbes, potloodceder
subspecies	
varieties	
hybrids	
references	CAB International. 2005. The Forestry Compendium www.cabicompendium.org/fc
	Wiselius, S.I. 2001. Hout vademecum. Ten Hagen Stam
	http://en.wikipedia.org/wiki/Juniperus_procera
	http://www.conifers.org/cu/ju/procera.htm
	http://www2.fpl.fs.fed.us/Techsheets/Chudnoff/African/htmlDocs_africa/Juniperusprocera.html
	http://www.iucnredlist.org/details/33217
	Adams, R. P. 2004. Junipers of the World: The genus <i>Juniperus</i> . Victoria: Trafford
	Sahle, Y. 2005. Population dynamics of <i>Juniperus procera</i> in high mountain forests of Ethiopia: dendrochronology and Matrix modeling. Student report
	Coualet, C. 2004. Growth and population dynamics of <i>Juniperus procera</i> in an Ethiopian dry afro-montane forest: dendrochronology and matrix model : a study in the Adaba-Dodola forest priority area. Student report
	Hall, J.B. & Ndosi, O.M. 1982. The status of <i>Juniperus procera</i> in the Arusha National Park, Tanzania
morphology	
crown habit	cone shaped
max. height (m)	30-42
max. dbh (cm)	300 and more
actual sizes –location, country - oldest tree –location-	
leaf length (cm)	8-15
leaf petiole (cm)	
leaf colour upper surface	green
leaf colour under surface	green
leaves arrangement	juvenile needle-like leaves and adult scale-like leaves in pairs of three
flowering	
flowering plant	dioecious, male and female inflorescences, with unisexual flowers; some plants bear both sexes
flower	
flower diameter pollen cones (cm)	
inflorescence description, length	green, turning orange brown stroboli
pollination	wind
fruit description	purplish to black berries with whitish wax
fruiting period	throughout the year
fruit; length (cm)	0.3 – 0.7
fruit petiole; length (cm)	
seed; length (cm)	4-5 x 3-3,5
seed-wing length (cm)	
weight of 1000 seeds (kg)	
seeds ripen	

seed dispersal	birds
seed longevity, dormancy	
habitat	
natural distribution	East Africa, mainly in Kenya, Tanzania, and Uganda; Saudi-Arabia, Yemen
introduced countries	USA, France, Great Britain
area natural habitat (ha)	
soil type	
water	tolerates drought
pH-KCl	acid, neutral, alkaline
soil fertility	
light	strong light demanding
temperature	
"optimum natural development"	dry mountain forest , commonly between 1800-2700 m asl.
remarks	
management	
status natural range	near threatened (IUCN Red List)
status introduced range	rare
application	forest tree and ornamental
propagation	seed
regeneration	natural regeneration
optimal gap size for regeneration	
resprouting after cutting	
growth rate	fast, 4 m in 5 years
diseases	
insects	
ecology	
plant communities / associations	"pure stands or more commonly mixtures with <i>Podocarpus gracilior</i> and with angiosperms (<i>Olea</i> , <i>Nuxia</i> , <i>Erythrina</i> , <i>Agauria</i> (tall Ericaceae), <i>Afrocrania volkensii</i> , <i>Cussonia spicala</i> , <i>Xymalos monospora</i> etc.)." (source: www.conifers.org)
associated trees	
wood	
trade name	East-African cedarwood, African pencil cedar
wood structures key characteristics	
density heartwood (kg/m ³)	450-550-650 (at 12% moisture content)
elastic modulus (psi)	11.100
total above ground biomass	
fungi class durability heartwood	4
heartwood colour	yellow brown to purplish brown
sapwood colour	creamy white
contents	odeur
products	pencils, wardrobes
market	as sawn timber for pencil production
non-timber products	



Natural *Juniperus procera* forest in Kenya, source FAO



Leaves of a young plant of *Juniperus procera*

