A Great Wealth of Palms

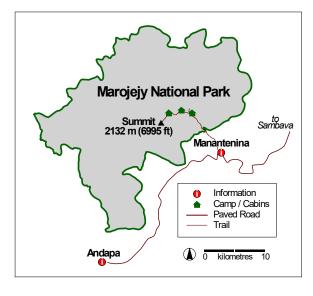
The Marojejy Massif rises abruptly, 2132 m (6995 ft) above the Indian Ocean in the northern portion of Madagascar's eastern escarpment. Warm, humid air blowing off the ocean supplies heavy rainfall to these rugged mountain slopes, and has created one of the island's most spectacular montane forests. Marojejy National Park protects this mountain and its forests, and all the natural wonders they contain.

Because of its high relief, high precipitation, and extensive forest cover, Marojejy provides a wide variety of habitats that are ideal for the growth of palms. Of the 170 species of palms known to exist on Madagascar, 35 (21%) grow in or around Marojejy. All but three of these palms are endemic to Madagascar, and seven (20%) of them are endemic to Marojejy.

Palms are found at all elevations in Marojejy. Especially palm rich are the mid-altitude forests between 700 and 1200 m, which provide excellent habitat for large littertrapping species such as the impressive *Marojejya insignis*, as well as steep slopes for the more graceful, taller palms such as *Dypsis baronii*. Smaller, understory palms found in these mid-altitude forests include *D. lokohoensis*, *D. thiryana*, and the rare *D. cookei*. Growing at the very high elevations are miniature palms such as the wind-dwarfed *D. bonsai*, and *D. pumila*, which thrives in bogs above 2000 m.

Over seventy percent of the palm species found in Marojejy have been classified as rare, vulnerable, or endangered. Many species have extremely limited distributions and startlingly low population numbers; one species (Dypsis ceracea) has not been seen since 1949 and may now in fact be extinct. Threats to palms include habitat destruction, fire, harvesting for palm heart, and plant and seed collection by palm enthusiasts. Fortunately, several non-governmental organizations, including the Lemur Conservation Foundation and Duke Lemur Center SAVA Conservation, have been working with local communities around Marojejy to protect the forests through environmental education and other conservation programs. We are hopeful that these efforts will help curb the loss of one of Madagascar's most precious resources — its great wealth of palms.

Access: Access into Marojejy National Park is via trail starting from the village of Manantenina, 60 km from Sambava along the road to Andapa. A permit and guide are required for entry; these are available at the visitor center in Manantenina.



Facilities: Three beautifully-sited and well-maintained camps are available at different elevations along the trail within the park. The camps all have cabins equipped with beds and bedding, as well as covered cooking and dining areas. Tent camping is also possible at several locations in the park.

Seasons: The park is open year-round, but the best times to visit are from April to May and September to December, when it is less rainy.

Surrounding Area: The SAVA region of northeastern Madagascar hosts a number of other beautiful and biologically-interesting areas, including Masoala National Park, Nosy Mangabe and Anjanaharibe-Sud Special Reserves, and a number of excellent private reserves.

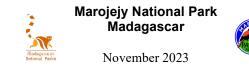
Further Information: For more in-depth information and photos, please visit the <u>marojejy.com</u> website or email <u>info@marojejy.com</u>.

The Palms of Marojejy



Dypsis baronii

photo: Éric Mathieu





Palm Species Found in and Around Marojejy National Park, Madagascar



N°	Scientific Name	Elevation	Distribution in Madagascar	Conservation Status
1	Dypsis acuminum	700–1900 m	Limited to 2 areas in N	Uncertain (dist. not well known)
2	Dypsis andapae	850–1400 m	Limited to 2 areas in NE	Rare
3	Dypsis andrianatonga	700–1800 m	Limited to 2 areas in N	Rare
4	Dypsis baronii	850–1470 m	Widespread in N, Central, and E	Not threatened
5	Dypsis bonsai	1000–1700 m	Limited to 2 areas in NE; total number of individuals possibly < 300	Vulnerable
6	Dypsis catatiana	450–1900 m	Widespread and common in NE and E	Not threatened
7	Dypsis ceracea	450 m	Limited to 2 widely separated sites in E; not seen since 1949	Extinct?
8	Dypsis cookei	1100 m	Marojejy only ; single population containing < 20 plants	Endangered
9	Dypsis coursii	900–1850 m	Marojejy only	Vulnerable
10	Dypsis fasciculata	5–225 m	Widespread in NE, but habitats vulnerable to destruction by fire	Vulnerable
11	Dypsis heteromorpha	1300–2200 m	Limited to 3 areas in NE; not seen since 1959	Uncertain, but probably rare
12	Dypsis heterophylla	550–1450 m	Widespread in N and E, but never common	Rare
13	Dypsis lastelliana	<450 m	Widespread in N and E	Not threatened
14	Dypsis lokohoensis	400–1200 m	Marojejy only	Vulnerable
15	Dypsis marojejyi	700–1100 m	Marojejy only	Vulnerable
16	Dypsis mirabilis	90–200 m	Marojejy only; distribution area is very small, with few individuals	Endangered
17	Dypsis occidentalis	450–1400 m	Limited to 3 areas in N	Uncertain (dist. not well known)
18	Dypsis onilahensis	50–300 m	Widespread in NW, W, and South-Central, but total number of plants < 1000	Vulnerable
19	Dypsis oreophila	500–1700 m	Limited to 4 areas in NE	Vulnerable
20	Dypsis perrieri	150–800 m	Limited to 3 areas in NE	Vulnerable
21	Dypsis pilulifera	750–950 m	Limited to 3 areas in N and E	Vulnerable
22	Dypsis pinnatifrons	< 1000 m	Widespread and common in N and E	Not threatened
23	Dypsis pumila	1500–2100 m	Marojejy only	Vulnerable
24	Dypsis spicata	850–1000 m	Marojejy only	Rare
25	Dypsis thiryana	220–900 m	Widespread in N and E, but never common	Rare
26	Dypsis tsaravoasira	275–1050 m	Limited to 3 areas in NE; population numbers very low (possibly < 30 plants total)	Endangered
27	Marojejya insignis	350–1150 m	Widespread in E, but not common (perhaps < 2000 individuals total)	Vulnerable
28	Masoala madagascariensis	200–420 m	Limited to 3 areas in NE	Vulnerable
29	Ravenea dransfieldii	425–1700 m	Limited to 4 widely separated sites in E, with low population numbers at each site	Vulnerable
30	Ravenea nana	1100–1900 m	Limited to 3 widely separated areas in E; not seen since 1963	Endangered
31	Ravenea robustior	< 2000 m	Widespread in NW, E, and SE, but never common	Rare
32	Ravenea sambiranensis	< 2000 m	Widespread in NW, W, and E, but never common	Vulnerable
33	Cocos nucifera	lowlands	Widespread; introduced from Indomalaysia (coconut palm)	Not threatened
34	Elaeis guineensis	< 500 m	Widespread; probably introduced from Africa (oil palm)	Not threatened
35	Raphia farinifera	50–1000 m	Widespread; probably introduced from Africa (raffia palm)	Not threatened

Source: Dransfield, J., and Beentje, H., 1995. The Palms of Madagascar. Royal Botanic Gardens Kew and the International Palm Society, Kew, Great Britain.