

Ravenea glauca in Andringitra, Madagascar

JOHN DRANSFIELD
Herbarium,
Royal Botanic Gardens Kew,
Richmond, Surrey,
TW9 3AE, UK
j.dransfield@kew.org

1. *Ravenea glauca*
"palm
forest."



The two main populations of *Ravenea glauca* are strikingly different in general appearance. The population from the type locality is illustrated in this article.

Andringitra is a major mountain massif in the southern part of Madagascar and Pic Boby, its highest point, at 2658 m elevation, is the tallest mountain south of the capital, Antananarivo. It can be seen from afar, dominating the spectacular inselberg scenery to the east of Route Nationale 7 near Ambalavao as one travels by road to the far

south. The eastern slopes of the Andringitra massif receive the benefit of moisture-laden air from the Indian Ocean and are clothed with significant remaining stands of submontane and montane rain forest. The upper reaches of the massif consist of rocky barrens with scattered heath vegetation dominated by species of *Erica* interspersed with



2. *Ravenea glauca* in abundance in a boulder field. Note the spherical crown, glaucous leaves and stiff more or less erect leaflets.

bare rock, small lakes and streams that rapidly flood after heavy rain. Most of the central core of the massif lies within the boundaries of a national park, the Andringitra National Park. To the west, there is a significant rain shadow effect and in the lower reaches of these western slopes most of the vegetation has already been

modified into anthropogenic grassland, frequently burned by local villagers. The spectacular inselbergs carry cliff vegetation composed of Cyperaceae, succulent species of *Euphorbia*, *Pachypodium* and *Xerophyta*. These inselbergs such as Tsaranoro have become popular with rock climbers and paragliders. In

some areas patchy semi-evergreen woodland survives, home to significant populations of the ring-tailed lemur (*Lemur catta*). Above all, the western approaches to the Andringitra massif are spectacularly beautiful.

Ravenea glauca has been recorded from scattered localities in the southern part of Madagascar, either from the western slopes of Andringitra or from the Isalo massif. The type specimen, *Perrier 13649*, was collected on the western slopes of Andringitra at 1200–1800 m elevation in 1921. However, the most convenient place to see the palm is in the much more accessible sandstone gorges of the Isalo National Park, about 200 km southwest of Andringitra. Here the palm grows in fragments of riverine rain forest deep within the narrow gorges, and my own knowledge of the palm in the field is based on these populations.

Photographs of the Andringitra population were shown to me by Adam Britt in 2004 and seemed to show a rather different palm. Instead of the rather delicate slender stemmed palm of Isalo with its dark green leaves, the Andringitra palm looked much more robust, stocky and with curved glaucous leaves (Back Cover).

Ravenea glauca is locally abundant in the western approaches to Andringitra at elevations of about 500–1000 m. A few scattered individuals can even be seen a bit lower among the huge boulders at the foot of the granite wall of Tsaranoro, but it is higher and further away that it occurs in most abundance. To the side of the main rock faces of Tsaranoro among boulder fields it is so abundant that it seems appropriate to call the vegetation “palm forest” (Figs. 1 & 2).

In 2010 I had the opportunity finally to see the palm in Andringitra. I was on holiday with my wife and friends and so was in no position to be able to make collections. Nevertheless

there are good collections from this general area – seeing the palm in the field was almost as important as making any collections.

The route up to the palm forest involved climbing steeply through grassland towards the southern end of the precipices of Tsaranoro. Even early in the morning it felt unbearably hot as we toiled up the steep path. Once we reached the precipices and skirted along their base, the vegetation became much more interesting, with a wealth of succulent plants. We had to cross a dry gulch with fragments of closed evergreen forest and here we found *Dypsis albofarinosa*. This species was described by Don Hodel from cultivation, and so it was immensely satisfying to see it in the wild. It is a slender clustering species with very much the habit of *D. baronii* and *D. lutescens* but with intense gleaming white crownshafts.

Shortly after this we began to meet *Ravenea glauca*. The path then led steeply upwards into the col between Tsaranoro and the next mountain, and we were soon in the midst of palm forest, dominated by beautiful *Ravenea glauca*.

Ravenea glauca here dominates the vegetation on a steep rocky hillslope, occurring singly or in dense groupings, mostly in full sun at the edge of small-leaved evergreen forest. Trunks show much evidence of damage from burning.

In the Isalo gorges, *Ravenea glauca* is a more slender palm, with a hemispherical crown of bright green, not glaucous leaves. The leaves are only slightly arcuate with leaflets held horizontally or slightly curved. In contrast the Andringitra palms are more robust and stockier, have spherical crowns of glaucous, strongly arcuate leaves and the leaflets are held stiffly in a V, more or less porrect to the rachis. These rather striking differences will be the subject of further study aimed at investigating whether the two populations represent separate species.