

floras. This can probably be attributed to the great distance from the equator. *Juania australis* (Mart.) Drude, from Juan Fernandez Islands (belonging to Chile) at about 35° S. Latitude, apparently ranges farther south than any

other native palm. In the northern hemisphere, at approximately 35° N. Latitude (at the level of North Carolina, Arkansas and Oklahoma), *Sabal minor* (Jacq.) Pers. probably ranges farther north than any other native species.

Table II
Geographic Distribution

Country	No. of Genera	No. of Species	Country	No. of Genera	No. of Species
United States	9	13	Dominica	6	8
Mexico	18	74	Martinique	6	6
Guatemala	22	76	St. Lucia	4	4
British Honduras	17	34	St. Vincent	2	2
El Salvador	5	5	Barbados	1	1
Honduras	16	27	Grenada	3	3
Nicaragua	11	27	Tobago	6	8
Costa Rica	23	81	Trinidad	15	37
Panama	23	72	Curacao	1	1
Bermuda	1	1	Colombia	50	294
Bahamas	5	5	Ecuador	20	55
Cuba	16	89	Peru	34	144
Jamaica	7	12	Chile	2	2
Navassa Island	2	2	Venezuela	30	106
Hispaniola	13	20	British Guiana	18	45
Puerto Rico	9	10	Surinam	9	23
Virgin Islands	2	3	French Guiana	7	14
Anguilla	1	1	Brazil	39	488
Saba	2	2	Bolivia	23	48
St. Christopher	2	2	Paraguay	10	25
Barbuda	1	1	Uruguay	3	3
Antigua	1	1	Argentina	5	7
Guadeloupe	6	6			

The Vallée De Mai And The Coco-De-Mer Palm

J. F. G. LIONNET

The small British Colony of the Seychelles, in the Indian Ocean, which is only 157 miles in area and consists of central granitic and outer coral islands, is renowned the world over for being the home of the coco-de-mer palm.

Of the three coco-de-mer reserves in

the granitic island of Praslin — Vallée de Mai, Fond Ferdinand and Anse Marie-Louise — the first is the best and the most worthwhile to visit. It was acquired by the Seychelles Government in 1948.

This reserve, which is a little less than

46 acres in area, is situated in the midlands of Praslin and can be reached, after a few minutes' drive, both from the villages of Grand'Anse and Baie Ste. Anne. The origin of the name "Vallée de Mai" is unknown; it is believed to have been bestowed upon the reserve by its previous owner. In it, some 4,000 coco-de-mer palms are growing in grandeur and beauty.

The coco-de-mer, *Lodoicea maldivica* (Gmelin) Persoon, is one of the most famous palms in the world and is a unique tree which is comparable with other famous trees of the world, such as even the Lebanon cedar or the giant sequoia of California. The coco-de-mer was endemic to only Praslin, Curieuse and the little Round Island, off the coast of Praslin, and was prominent in the vegetation which covered these islands. It has now disappeared from Round Island, but is still to be found on Praslin and Curieuse. On Praslin, apart from the reserves, it occurs as small stands or isolated trees. On Curieuse there are fewer palms still. The coco-de-mer palms to be found on the main island of Mahé and in other parts of the world have been planted.

The reason why the coco-de-mer existed only on Praslin, Curieuse and Round Island originally is very difficult to explain. It is thought, however, that when the large land mass, of which the granitic Seychelles are believed to be the remnants, split and disappeared in geological times, during which numerous plant species must have become extinct, the gregarious coco-de-mer was isolated on these islands. As the fresh and viable coco-de-mer nuts do not float on water, they could not be carried away by the sea, and the species therefore became restricted to Praslin and two of its satellites.

The coco-de-mer is an extremely slow-



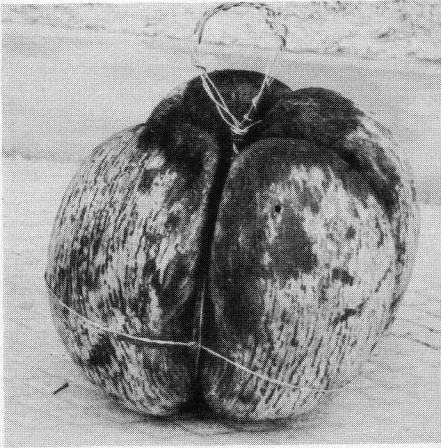
117. A young female *Lodoicea* with fruits.

growing palm. The seed-nut takes about a year to germinate. The palm does not start bearing before it is 25 years old and takes one hundred years to reach its full size, which is about 100 feet. The nut takes seven years to mature. Usually only one of the huge palmate leaves, with a span of 20 feet, and four flowering shoots are produced in one year.

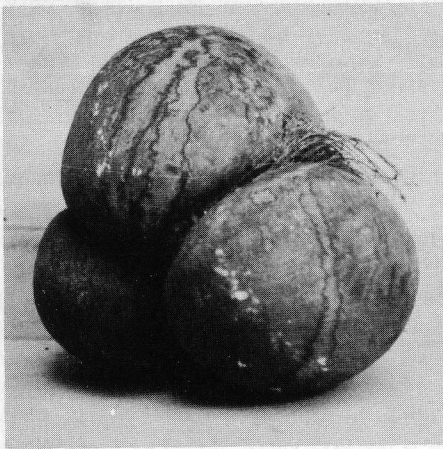
The tall coco-de-mer palms in the Vallée de Mai have been estimated to be some 800 years old. The huge bilo-



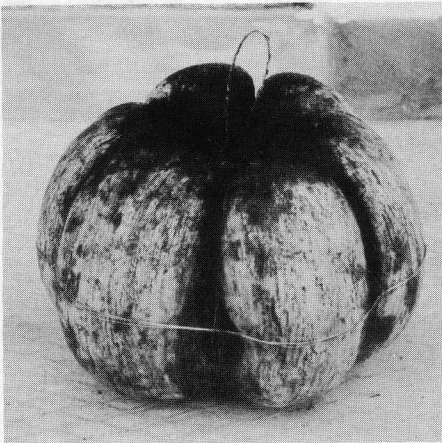
118. Close-up of coco-de-mer fruits.



119. Two seeds from a single fruit.



120. A trilobed coco-de-mer seed.



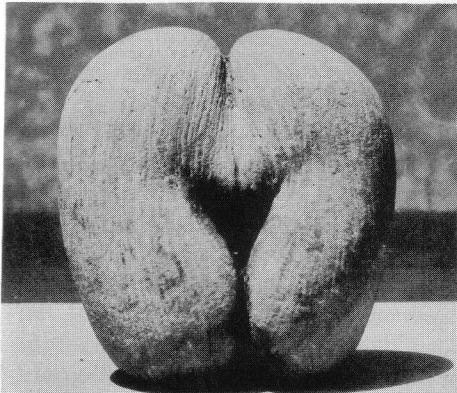
121. Three seeds from a single fruit.

bed nuts, which are contained in the heart-shaped fruits, are not only most suggestively-shaped, looking like a female pelvis, but also constitute the heaviest seeds of the vegetable kingdom, weighing between 20 and 40 pounds. Some of the fruits, which contain two or sometimes three bilobed nuts, weigh over 100 pounds. Rarer still are fruits with trilobed nuts. Belonging to the *Borassaideae* subfamily of the large family *Palmae*, the *coco-de-mer* is dioecious; there are therefore "male" and "female" trees with respectively staminate and pistillate flowers. The male inflorescence, — a large catkin, 3 to 4 feet long and 3 to 4 inches thick, bearing numerous, small, yellow flowers — is especially striking.

Before the Portuguese rounded the Cape of Good Hope and came into contact with the inhabitants of the Maldiv Islands, India, and Indonesia, the *coco-de-mer* was unknown in Europe. It had been known, however, to the inhabitants of these lands, who on rare occasions picked up on their shores the partly-decayed, empty, bilobed shells which, being lighter than water, had floated away and had been driven by sea currents. The strange shape and the mysterious origin of these empty nuts, and their rarity, captured the imagination of the people who found them. All sorts of powers or virtues were attributed to them and many legends were created about them. The partly-decayed, ivory-like endosperm of the nuts was thus believed to be an aphrodisiac and the shell an antidote, while the tree which produced them was believed to be a giant submarine one. As a result these nuts were highly-prized and became precious possessions. It is reported that the nuts picked up on the shores of the Maldiv Islands, just like ambergris, were by right the property of the kings

of the islands and that persons retaining them in their possession could be put to death or have their hands cut off. Through early European explorers the coco-de-mer nut was introduced into Europe, where it also became a coveted possession. It is thus recorded that Rudolph II of the Hapsburgs offered, in vain, no less than 4000 gold florins for one such nut, which belonged to the heirs of the Dutch Admiral Wolfert Hermanssen, who had received it as a reward from the Sultan of Bantam, for saving his capital from the Portuguese besieging it in 1602. Closer to us, the coco-de-mer so inflamed the imagination of the pious English General Gordon, hero of Khartoum, who visited the Seychelles in 1881, that he depicted it as the fruit of knowledge and Praslin as the Garden of Eden.

In 1768, however, no less than 26 years after the first exploration of the Seychelles by the French, a French engineer, by the name of Barré, while surveying the island of Praslin, recognized the coco-de-mer. Not believing his eyes, he collected 30 nuts and took them to Pierre Poivre in Mauritius, who was then Intendant of the French Colonies beyond the Cape of Good Hope and who was a keen botanist and a great plant lover. Poivre was delighted with



122. Close-up of *Lodoicea* seed.



123. Male inflorescence of coco-de-mer.

Barré's discovery and asked the Abbé Alexis Rochon, a French astronomer who was to visit the Seychelles one year later, to bring back young coco-de-mer plants to Mauritius, which the abbé did. Soon after, coco-de-mer nuts were dumped on the Indian market by the shipload and lost their tremendous value forever.

Nowadays the coco-de-mer is only moderately prized for its nuts, which in the immature stage contain a white, sweetish jelly considered a dessert delicacy, and in the mature stage are bought as curios, and also for its leaves, which are used as materials for hat and basket making and sometimes also for making attractive and original light partitions in huts and cottages.

In the Vallée de Mai may be found other endemic trees of the Seychelles, such as the broad-leaved bois rouge, *Dillenia ferruginea*, and capucin, *Northea seychellana*, the beautiful palmiste, *Deckenia nobilis*, the striking palm *latanier latte*, *Verschaffeltia splendida*,



124. The girl holds a single male spike.

and the stately screw pine *vaquois parasol*, *Pandanus Hornei*.

In or about the valley may also be seen a number of endemic birds, such

as the Seychelles bulbul or merle, *Ixocinclia crassirostris*, the beautiful fruit pigeon or pigeon *hollandais*, *Alectroenas pulcherrima*, and the rare Praslin black parrot or *cateau noire*, *Coracopsis barklyi*.

The Vallée de Mai is open to the public and may be visited at any time during the day. A tour of the valley by the circular path takes about 2 hours. Shorter tours, of one hour or less, may be made by the central or other paths. Landmarks in the valley are the kiosk, the tallest coco-de-mer palm, which is 102 feet high, the "pink" coco-de-mer, which is a tree whose immature nuts contain a pink jelly of the white one to be found in the nuts from other palms, and especially the palm and pandanus grove, which gives the visitor an inkling of how beautiful the valley and the whole of Praslin must have looked originally.

References

- Bailey, L. H. *Palmae Sechellarum. Gentes Herbarum* 6: 1-48. 1942.
- Durocher, Yvon F. *Seychelles Botanical Treasure: "The Coco-de-Mer" Palm (Lodoicea maldivica Pers.)*. *La Revue Agricole de l'Île Maurice* 26: 68-87. 1947.
- Fauvel, A. A. *Le Cocotier de Mer des Îles Seychelles. Annales du Musée Colonial de Marseille, series 3, 1*: 169-307. 1915.
- Jeffrey, C. *Coco-de-mer*. *New Scientist* 21: 34-37. 1964.

Palm Hunting Around the World

HAROLD E. MOORE, JR.

III Sabah and Australia

Sabah

Headquarters for the Forest Service is in Sandakan where, after changing planes in Jesselton, I was met by Dr. Meijer and launched, figuratively and

almost literally, into a whirl of palm activity commencing the morning of January 14th when, after attending to drying preparations for Bintulu collections, we visited the nearby Kebon China for-