

natives however have never taken to it, preferring the coir of the cocoa-nut, and the toddy and sugar of *Phœnix sylvestris*.

86. (2) *A. Westerhoutii*, (n. sp.) petiolis inermibus, pinnis alternis bifariis linearibus basi uni vel ex-auriculatis apice exattenuato truncatis sæpius bilobis et varie dentatis.

HABIT.—Naning, Malacca Peninsula, *Mr. Westerhout*. Penang. *Mr. Lewes*. Malayan names, *Anowe kutaree*, (Malacca); *Langkup* (Penang.)

DESCR.*—A palm of about the size of the preceding. *Leaves* ample, linear-oblong in outline, 20 feet long, 10 feet across in the broadest part; *rete* as in *A. saccharifera*; *pinnæ* sessile, about 5 feet in length, 3 inches broad, alternate or sub-opposite, solitary, bifarious, very spreading with deflexed points, attenuate towards the base, the upper ones alone auriculate at the lower side, coriaceous, bright green above, white underneath and (with the petiole) scurfy towards the base; margins with irregular spinescent teeth; apex præmorse, dentate and erose, sometimes bilobed.

to every one who possesses lands, particularly such as are low, and near the coasts of India, to extend the cultivation thereof as much as possible. The palm wine itself and the sugar it yields, the black fibres for cables and cordage, and the pith for sago, independent of many other uses, are objects of very great importance, particularly to the first maritime power in the world, which is in a great measure dependent on foreign states for hemp, the chief material of which cordage is made in Europe.

From observations made in the Botanic Garden, well grown, thriving trees produce about six leaves annually, and each leaf yields from eight to sixteen ounces of the clean fibres.

In the same garden are now (1810) many thousand plants, and young trees, some of them above twenty years growth, with trunks as thick as a stout man's body, and from twenty to thirty feet high, exclusive of the foliage. They are in blossom all the year; one of them was lately cut down, and yielded about 150 pounds of good sago meal. (*Roxb. op. cit.*)

* From an entire specimen of a young palm, procured from Naning by Mr. Westerhout, two male spadices, and several specimens of female flowers and fruits.

Spadix curved-pendulous. *Spathes* fibrous, coriaceous, often split. *Spikes* about level topped. *Male flowers* in pairs, without an interposed rudimentary female, or solitary, with a rudimentary female. *Calyx* cup-shaped. *Petals* oblong, fuscous-purple. *Stamina* numerous; *filaments* short, subulate; *anthers* with mucronate or aristate ends. *Pollen* hispid, with a longitudinal fold.

Female flowers solitary, sessile. *Sepals* broad. *Petals* three, cordate, concave, obtusely carinate. *Ovarium* roundish, trigonal, (angles opposite the sepals,) depressed at the apex, and there marked with three lines running from the angles to the stigmata, which are three, tooth-shaped, and connivent, so as to form a cone.

Fruit roundish, about the size of a small apple, with a depressed three-lobed trigonal vertex, terminated by the sphacelated stigmata, surrounded at the base by the perianth, 2-3 celled; outer substance thick, fibrous-fleshy. *Seed* separating with the thick gelatinous-cellular, endocarp, black; when three convex-bifacial. *Embryo* oblique about the centre of the dorsal face of the horny *albumen*.

Not having seen this palm growing, I am unable to say any thing regarding its habit. The chief difference from *A. saccharifera* is in the leaves. *A. obtusifolia*, Bl., has the petioles furnished with marginal aculei.

The *Langkup* of Penang may probably be distinct, the pinnæ being smaller and more truncate, the branches of the fruit spadix spreading, short, and the fruit larger and more oblong.

I am not aware of its being applied to any use. I have Mr. Westerhout's authority for stating it to be quite local, being only found in one place, although there abundant.

87. (3) *A. Wightii*, (n. sp.) sobolifera, trunco humili 3-8 pedali, petiolis inermibus, pinnis alternis linearibus basi bi-auriculatis (auricula inferiore maxima) apice attenuato erosis inæqualiter bilobis, spadicis ramis subfastigiatis, fl. fæm. staminibus sterilibus pluribus, semine venoso, embryone supra medium.

HABIT.—Dense forests, Hills about Coimbatore, *Dr. Wight*.