

they are white,) oblong, erect or nearly so, very rigid and almost siliceous.

Stamina effete, the filaments united to the corolla high up.

Ovarium oblong, very strigose with subulate erect hairs, towards the base covered with pointed fleshy scales, 3-celled, substance thick and fleshy. *Ovulum* one in each cell, erect, anatropous. *Style* short, 3-partite to the middle, branches irregularly ob-cuneate, stigmatic surfaces blood-coloured.

The Smaller or neuter flowers* present a small rudiment of a pistillum, the stamina are reduced almost to the filaments, those opposite the petals being much larger.

Fruit obliquely oblong-ovate, attenuated into a rostrum or cuspis, three inches long, one and a quarter in diameter, covered with scales with hispid recurved points. *Pulp* white, more spongy than in *Z. edulis*. *Seeds* large, more deeply furrowed than in *Z. edulis*: all those examined were abortive, not even presenting any albumen, though otherwise perfectly formed: the cavity was found filled with a fetid fluid; like those of *Z. edulis* they are covered with a fine membrane which belongs to the fruit, since it forms the septa round the barren ovula.

The fruit is eaten like that of *Salak Batool* The petioles of the leaves when split are used for tying *Artup* (*Nipa fruticans* leaves) on, and are also made into baskets.

This very distinct species will be at once recognised by its spadices, by the distant solitary spikes, not altogether exerted from the large scarious spathes, which resemble those of *Z. edulis*. The fruit resembles in shape that of the same species, as represented in the *Pl. Asiat. Rariores*.

5. (5) *Z. glabrescens* (n. sp.) pinnis continuis angustelanceolatis cirrhoso-acuminatis, spadice ramosissimo, spicis secundis (masculis et fæmineo-neutris) longe pedicellatis, bracteis latissimis undulatis villum parcum obtegentibus, ovario strigosissimo.

* They appear to be irregular in situation, and not unfrequently wanting.

HAB.—Penang, Mr. Lewes, who sent it to me under the name *Salak*.

DESCR.*—*Petioles* slender, trigonal even below the pinnæ, with appearances of having been armed with a simple row of spines on either face. Uppermost spines of the under face slightly curved upwards, short and stout, on the upper triangular part lower down is a row of larger solitary spines. *Pinnæ* not interrupted, narrow lanceolate, twenty and twenty-two inches long by two and a half broad, cirrhoso-acuminate, margins towards the apex with a few setigerous teeth, veins as in *Z. edulis*; terminal part of the leaf bilobed, each lobe deeply four and five divided.

Spadices much branched, less covered than in most of the other species by the primary spathes, the branches entirely covered with loosely sheathing spathes, generally with one terminal spike, sometimes themselves branched, each branch bearing a spike. Young *spikes* or aments slender, owing to the broad shallow bractes looking as though they were annulate. Mature *female-neuter* ones stout, three-four inches long, with an obvious spiral arrangement. *Bractes* of apex, (which is attenuate cuspidate,) and base, empty, broad, margins undulate. *Bracteolæ* and septum large, shortly woolly at the points. No wool visible externally.

Male spikes cylindrical, about the same length, but much smaller in diameter, wool very little developed. *Bracteoles* obsolete or nearly so.

Male flowers in pairs, both of equal size, projecting very little beyond the bracteæ. *Calyx* three-toothed, teeth rounded. *Corolla* tripartite nearly to the middle, tapering below, (a considerable part of this taper portion is torus, or rather internode,) segments broadish, oblong.

Stamina united to the corolla as far as the base of the segments. *Filaments* (free) short. *Anthers* oblong. No rudiment of a *Pistillum*.

Flowers of female neuter spikes in pairs, one large, and one small.

Smaller flower neuter, longer and larger than the male flower, and more oblique, but otherwise much the same. Barren *stamina* six, united high up to the petals, *filaments* (free) of middling length,

* Specimens, portion of a leaf and spadix in flower.

subulate. Anthers small effete. Within the attenuate base, an ordinary rudiment of the female.

Female flowers large, also oblique.

Calyx not quite divided to the middle, scarious, very striate, segments oblong obtuse. *Corolla* (expanded not seen,) a little longer than the calyx, tripartite nearly to the middle, segments broad ovate.

Barren stamina six, much like those of the neuter flower.

Ovarium very densely strigose with erect stout hairs,* (of which the lower are the shorter,) ovate conical, with a stout neck similarly covered with hairs, 3-celled. *Ovula* solitary, erect, anatropous. *Style* stout, thicker than the neck of the ovarium, tripartite, segments lanceolate, stigmatose inside.

This species, would appear to approach *Z. secunda* in the branching of the spadix. It is the only species I am acquainted with in which the wool of the bracteoles is so little developed, as not to be visible externally. The spikes consequently have a smooth aspect.

6. (6) *Z. conferta* (n. sp.) pinnis lineari-ensiformibus strictis margine setoso-spinescentibus, spicis (masculis vel fæmineo-neutris) confertis, fructibus (confertis) turbinatis glaberrimis.

HAB.—In very shady wet places in the great forests of Malacca, as at Ching and Katawn, in flower and fruit most of the year. *Assam Kaloobee*, *Assam Paiah* of the Malays of Malacca.

DESCR.—Stout, less tufted than any of the others I have seen, forming an impenetrable jungle.

Petioles 10-12 or 18-20 feet long, without pinnæ for about half their length, roundish but flattened above, stout, armed, except on upper flat part, with fasciculate, white, slender spines. *Pinnæ* regularly alternating, quite straight, almost ensiform, two feet

* These hairs are flattened and a little dilated at base, upwards they become subulate and have a fibrous appearance.