

Malayan species described, one being apparently quite isolated in regard to relationship. Nor is this an unexpected conclusion: Hong-kong is far distant from the focus of the genus, and has a very different vegetation; of the seven species recorded from Ceylon, so close to the Indian continent, three are said to be endemic; and concerning those of "India aquosa," Blume writes* :—"Pleræque species longe angustioribus terminis circumscriptæ sunt quam vulgo creditur. Ex nostro quidem opere intelligitur ut omnes Asiæ continentis species, nulla fere excepta, a Javanis revera differunt, ita has rursus ab illis quæ Moluccas incolunt esse diversas, quin etiam singulis fere insulis vasti Archipelagi indici suas esse species, atque adeo inexhaustas esse naturæ harum palmarum viminearum divitias." One of them is a *Dæmonorops*, a group surely of no more than sectional value, † the other two are true *Calami*, and belong to Griffith's *Coleospathæ*, the first to the division *a. erectæ, eflagelliferæ*, the second, I presume, to *β. scandentes, petiolis eflagelliferis*. ‡ I have followed Von Martius' arrangement; but am disposed to believe that the circumscription of primary groups mainly or exclusively by the presence or absence of *lora* and *cirrhi*, however convenient for purposes of classification, may have the practical effect of separating species really closely allied, and is at the best but an artificial expedient.

1. CALAMUS (*Eucalamus, Anuri*) THYSANOLEPIS, *sp. nov.*—Stans, acaulis, frondibus petiolatis $2\frac{1}{2}$ - $3\frac{1}{2}$ pedalis ecirrhiferis segmentis in fasciculos 12-15 oppositos v. subalternos intervallo 2-3 pollicum sejunctos quovis fasciculo e phyllis 2-6 conflato digestis, petiolo inferne subtereti-complanato superne triquetro flaventi-viridi aculeis validis rectis sparsis dimidio inferiore petiolo concoloribus a medio ad apicem nigris subtus armato, segmentis decrescentibus flaventi-viridibus ensiformibus acuminatis 4-15 poll. longis 6-8 lin. latis margine et facie superiore secus costam nervosque binos margini subapproximatos reliquis paulo magis conspicuos et subprominulos aculeolis distantibus obsitis, spadicis feminei ecirrhosi decompositi spathis primariis cum

* Rumphia, iii., 30.

† Blume himself (Rumphia, iii., 29.) allows that it is but a subgenus; whilst Miquel, though he afterwards admitted it, wrote, under a happier inspiration :—"Genus *Dæmonorops*, characteribus nimis levibus innixum, cum *Calamo* conjungendum est. Sectionem potius ejus generis quam subgenus mihi constituere videtur." (Analect. bot. ind., i., 6.) Griffith, who was essentially a philosophical naturalist, united the two without any remark. Miquel's inconsistency in subsequently distinguishing *Dæmonorops* is remarkable, because there is in reality no character save the ruminated albumen to support this view, and this varies in degree in the different species; whilst in *Calamus* it is always more or less erose or tubercular on the surface, and sometimes, (e.g. in *C. melanoloma*, Mart.) perforated, i.e., imperfectly ruminated. Yet, while in this instance assigning to a variable character generic rank, he combines under *Psychosperma* species with both ruminated and uninterrupted albumen. To me there seems abundant reason for concluding that ruminated albumen is a character of very little importance in Palms; nevertheless, both M. Brongniart (Ann. sc. nat. be. sér., ii., 158.) and Dr. Scheffer (in a valuable memoir "Sur quelques Palmiers du groupe des Arécinées," published in the 12th vol. of the *Natuurkund. Tijdschr. v. Ned. Indie.*) attach primary value to it. On the other hand, Dr. Hooker (Fl. Nov. Zeland., i., 261.) combines *Kentia* with *Areca*, though the 1-celled ovary is opposed to the reduction.

‡ Palms of Brit. India, 35.

pedunculo inermibus laxis extus furfuraceo-glandulosus in fibras facile solutis, ramis primariis circ. 6 spathæ subæquilongis recurvis tomento fulvo derasili obtectis inferne compositis superne simplicibus crassis flexuosis, ramulis tetragonis densifloris subbipollicaribus spathellis membranaceis laxis acuminatis fultis, bracteis ovatis acuminatis fibroso-nervis; fructus ellipsoidei conspicue umbonati 6 lin. longi orthostichis 18 singulo e squamis 12-14 (inclusis summis depauperatis) conflato, squamis esulcatis fulvo-flaventibus acumen versus rufo-brunneis margine eleganter fimbriato-ciliatis, seminibus subcompresso-ellipsoideis, albumine extus subtuberculato intus latere chalazam spectante conspicue excavato æquabili, embryone exacte basilari.

Juxta fontes rivi ad Taitamtuk, ins. Hongkong, sub initio mensis Novembris 1873, legit Dr. G. Dods. (Herb. propr., n. 18373.)

This, which seems uncommon, for I only know about half a dozen plants on the island, is apparently without near relations. I am not aware that any other species of this section is known with clustered frond-segments. *C. fasciculatus*, Roxb., and a few others distinguished by this character belong either to the *Loriferi* or the *Cirrhiferi*. The fruit, if wounded, exudes a juice which hardens into a transparent red Dragon's-blood.

2. CALAMUS (*Eucalamus, Loriferi*) WALKERI, *sp. nov.*—Frondebis petiolatis 3-4 pedibus ecirrhosis, petiolo inferne rotundato-complanato superne triquetro spinis validis rectis v. recurvis quandoque pollicaribus apice nigrescentibus subtus armato, segmentis 30-40 jugis decrescentibus suboppositis intervallo circ. pollicari separatis flaventi-viridibus ensiformibus acuminatis 8-20 poll. longis 6-12 lin. latis terminali sæpe ultra medium bifido supra costa nervisque duobus reliquis paulo validioribus ei et marginibus fere intermediis aculeolis distantibus setiformibus obsitis aculeolisque paucis nunc in pagina inferiori occurrentibus, spadiceis feminei in lorum elongatum dorso spinis semiverticillatis in cupulam connatis horridum producti decompositi spathis primariis cum petiolo aculeatis haud inflatis acutis præter marginem apicalem dense et grosse setoso-ciliatum glabris, ramis primariis 2-4 spatham multum superantibus flexuosis erectis subglabris ramulos circ. 40 divaricatos densifloros satis tenues 1-2 pollicares proferentibus, spathellis laxis rigide membranaceis margine ciliatis, bracteis præter molem minorem spathellis conformibus, ovariis stigmatibus papillosis crassis divergentibus coronatis, fructus ovoidei stigmatum basi apiculati 5 lin. longi orthostichis 18 singulo e squamis 8-10 (summis imperfectis computatis) esulcatis eburneo-stramineis æqualiter et anguste fusco-marginatis composito, seminibus compressis, albumine extus grosse gyroso-tuberculato intus æquabili ad chalazam non excavato, embryone exacte basilari.

In insula Hongkong, m. Augusto 1873, fructiferum legit centurio A. L. Walker. (Herb. propr. n. 18225.)

Not uncommon in several parts of the island, according to its discoverer. The nearest relatives of this plant appear to be *C. viminialis*, Willd. and cognate species.

3. CALAMUS (*Damonorops, Cymbospathæ*) MARGARITÆ, *sp. nov.*—Caudice primum erecto dein vagante 15-pedali et ultra basi diametro 3-pollicari aculeis atro-fuscis rectis complanatis pollicaribus deflexis spiritaliter zonatim dispositis aliisque acicularibus minoribus confertis