

*Obs. 1.*—Dr. Rodriguez (l.c., p. 33) has indicated (from specimens given to him by myself from Aveyros) the species under the name *B. cyagroides*. As I was the author of the name, having given him specimens under that as a provisional name in case it should prove to be undescribed, I have restored it to its proper form, viz., *syagroides*, as I gave the name from its resemblance in habit to *Syagrus coccoides*, Mart., on a small scale. I have the less hesitation in doing so as Dr. Rodriguez's description is not sufficient as a means of identifying the species; I quote it here :—

“18. *B. cyagroides*, Barb. Rod. et Trail.—Stipite altitudine 1<sup>m</sup>-1·5<sup>m</sup>, diametro 0·15 ; vaginis petiolorum persistentibus obvelatis, cum pubescentia spinis deciduis; frondibus pinnatis; foliis 30-33-jugis, 5-0 , 10 latis, linearibus, longe acuminatis; spatha breviter aculeata. (Barb. Rod. hb. Palm., 328.)”

*Obs. 2.*—This species should hardly be confounded with any but *B. concinna*, subsp. *depauperata*, Trail, from which it is distinguished by the more numerous pinnæ and by the branched spadix.

*Obs. 3.*—Owing to the absence of flowers and fruit, and to this species not showing close affinity to any described species, it is not certain at present to which section of the genus it may prove to belong.

#### Genus ASTROCARYUM, Meyer.

This genus is well represented in the Amazon Valley, usually by conspicuous forms which aid in giving a peculiar aspect to the forests and campos of that country. Some of the species, however, are stemless, while others do not exceed 20 feet in height of trunk, and aid in forming the dense thickets and undergrowth so frequently met with in Amazonia. All the species are very spiny, trunk, leaves, and spathes all bearing long black compressed spines. On the trunk the spines (usually reflexed) form rings of greater or less breadth. In all the leaves are pinnate. The pinnæ usually exceed 40 pairs in number; they are almost always linear-lanceolate, with 1 primary and 6-8 secondary veins, more or less plicate, and whitish below.

Unfortunately I collected and made notes on few of them, partly on account of their large size rendering their collection difficult while travelling, partly from a belief that the large species of Amazon Palms had already been wrought out.

42. *A. Paramaca*, Mart. (Palmet. Orb., pp. 88-9).

? var. *Javarense* (Trail hb. Palm., 185.)—Acaule, vel caudice sub 6<sup>m</sup>, aculeato, vaginis obvelato; foliis pluribus contemporaneis, 4·5<sup>m</sup>-8<sup>m</sup>, æqualiter pinnatis, ad petiolos (1·2<sup>m</sup>-1·8<sup>m</sup>) aculeis nigris, 0·02<sup>m</sup>-0·12<sup>m</sup>, in greges 0·01<sup>m</sup>-0·03<sup>m</sup> dissitos, 90-100-natim aggregatis valide armatis; costa aculeis brevioribus sparsioribus armata; pinnis 100-110-jugis, lineari-lanceolatis, acuminatis, mediis 0·75<sup>m</sup>-0·9<sup>m</sup> × 0·04<sup>m</sup>, deorsum et sursum minoribus, ad margines et ad venam primariam supra aculeolis nigris ciliatis; spathis 2, interiore 0·9<sup>m</sup>, ventre fusiformi, sublignea, ad basin pilis colore carnis, ad medium setis fuscis dense vestita ita ut pellem animalis referat, apicem versus aculeis subnigris sed carnosio-floccosis contortis fragilibus 0·01<sup>m</sup>-0·05<sup>m</sup> armata et penicillata; spadice 0·9<sup>m</sup>, pedunculo carnosio-floccoso, inermi

vel armato, rachi  $\cdot 2^m$ , ramos plurimos  $\cdot 08^m$ - $\cdot 1^m$  inermes, pedicellis  $\cdot 025^m$ - $\cdot 04^m$  ornatos proferente; fl. ♂ alveolatis, solitariis, hexandris, alveolis hexastichis; fl. ♀ solitariis, in basi ramulorum sessilibus; calyce et corolla subæqualibus, urceolaribus, ore tridenticulatis, extus aculeolis subnigris nitidis dense armatis; andrœceo sterili quam corolla duplo brevior, eidem que arcte adhærente; drupis (immaturis  $\cdot 02^m$ - $\cdot 04^m$ ) obovatis, ad basin pressione mutua polygonis, rostellatis, aculeis  $\cdot 01^m$  nitidis, subnigris, contortis adpressis crebris armatis.

*Hab.*—In sylvis ad Camaná, fl. Javary. Ab Indis “Murumurú” nuncupatur.

*Obs. 1.*—From *A. Paramaca* the above palm differs chiefly in the slighter armature of the spadix, in the sessile ♀ flowers, in the absence of spines or setæ below the ♀ flower, in the corolla and the calyx being of equal length and thickly covered with spines, and in the fruit also being more spiny. I know *A. Paramaca* only from the description; hence it is possible that on comparing specimens of the two palms *A. Javarense* may prove to be a distinct species.

*Obs. 2.*—From *A. Murumurú*, Mart., it differs in being stemless or nearly so, in the longer leaves, in the more numerous pinnæ, in the 6 stichous alveoli of the male flowers, in the calyx being equal to the corolla and both being very spiny, and in the larger and far more numerous spines on the fruit.

From *A. Ayri*, Mart., it differs in being stemless or nearly so, in the longer leaves, in the inner spathe, in the unarmed or slightly armed spadix, the spines when present being adpressed, in the unarmed pedicels of the ramuli which are longer than in *A. Ayri*, in the unarmed bracts of the female flowers, in the hexastichous alveoli, in the calyx equalling the corolla, and lastly in the habitat.

It can hardly be mistaken for any other species than those mentioned.

43. *A. MINUS*, *sp.n.* (Trail hb. Palm., 213).—Mediocre; caudice solitario,  $2\cdot 4^m \times 1^m$  (ad basin)- $\cdot 07^m$  (ad apicem), nudo, valide annulato, inter annulos aculeis transverse subseriatis,  $\cdot 01^m$ - $\cdot 03^m$ , nigris armato; foliis compluribus contemporaneis,  $5\cdot 5^m$ - $6^m$ , æqualiter pinnatis, ad vaginas petiolorum et costas aculeis nigris  $\cdot 01^m$ - $\cdot 08^m$  valide armatis; pinnis 60-70-jugis, suboppositis, lineari-lanceolatis, acuminatis,  $1^m \times \cdot 03^m$ , sursum brevioribus, 5-7-venosis, valide plicatis, supra glabris, subtus albidis, ad margines setoso-ciliatis; spatha (unica?) sublignea fusco-setoso-pellita, et apicem versus aculeis  $\cdot 01^m$ - $\cdot 03^m$  fuscis armata; spadice  $1\cdot 6^m$ , pedunculo  $1\cdot 3^m$  ferrugineo-leproso et aculeis  $\cdot 005^m$ - $\cdot 01^m$  nigris adpressis sparsis armato, rachi  $\cdot 3^m$  ramos plurimos  $\cdot 09^m$  flexuosos pedicellis  $\cdot 01^m$ - $\cdot 02^m$  setosis ad basin in receptaculum subligneam dilatatis præditos proferente; fl. ♂ ?; alveolis 5-stichis; fl. ♀ sessilibus in receptaculis; calyce et corolla subæquilongis, urceolaribus, ore tridenticulatis, a symmetricis, extus aculeis  $\cdot 01^m$  contortis subnigris adpressis vestitis; andrœceo sterili corolla  $\frac{1}{3}$  brevior, ovario ovoideo.

*Hab.*—In sylvis primævis ad Barreiras de Mutum, fl. Jutahi, ab indigenis “Murumuru-i” vocatur.

*Obs.*—This species has much the habit of *A. Tucumá*, Mart., in miniature, but it can hardly be confounded with any species save *A. gynacanthum*, Mart., or its variety *A. Munbaca*, Mart. (sp.). From