

| | | |
|------------|---|------------------------------|
| Cyllichna | 3 | cylindracea, and two others. |
| Amphispira | 1 | hyalina. |
| Philine | 1 | aperta. |
| Spatangus | 1 | |
| Asterias | 1 | |
| Ditrupe | 1 | |

Of the foregoing species (about 125) 58 inhabit Britain, 98 to 100 the Mediterranean or coasts of Portugal (including all the British species); of those remaining, 16 are common to the Canaries, 1 (a *Tellina*) to Mogador, leaving 3 species of *Rissoa*, 2 of *Emarginula*, 1 of *Scalaria*, 2 of *Argiope*, and 1 of *Turritella*, supposed to be new.

The land shells of these islands having been well worked out by other parties, it is unnecessary to say anything upon them. I was much struck by their great abundance in the Dezertas and Porto Santo.

Beaumaris, July 5, 1852.

XII.—On some genera of the Icacinaceæ. By JOHN MIERS, Esq., F.R.S., F.L.S.

[Continued from p. 44.]

PLATEA.

IN commenting upon the genera of the *Icacinaceæ*, I have frequently spoken of *Phlebocalymna*, a manuscript name proposed by Mr. Griffiths for a plant collected by him in the Malacca Peninsula, but as I am unable to discover that any of its characters are appreciably distinct from the *Platea* of Blume, the former must necessarily merge into the latter genus, which was first established by that distinguished botanist in his 'Bijdragen,' and more lately recorded in his 'Mus. Bot. Lugd.,' where he enumerates another new species. In describing the characters of *Stemonurus*, I have stated (*ante*, p. 32), that the chief or perhaps only feature that can distinguish *Platea*, is the absence of the glandular hairs, that form a beautifully fringed crest over the anthers in the former genus, and as this was believed only to be a sexual difference, I had considered *Platea* as identical with *Stemonurus*. In the former, as also occurs in many species of the latter genus, the filaments are said by Blume to be short and broad (whence probably the generic name from *πλατεία*, *amplus*), while in *Phlebocalymna*, although when in bud they are short and broad at base, they become afterwards long and

linear: the differences in regard to their relative length and breadth are probably only specific, as we find them to occur in *Stemonurus*. After desiccation, the flowers of *Phlebocalymna* appear of an orange colour, which is probably retained from the living state; they are somewhat more transparent and agglutinated at their edges than in *Stemonurus*, the calyx is more distinctly 5-lobed, and the segments are imbricated in æstivation, a feature also recorded by Blume in his character of *Platea*: in Griffiths's plant from Mergui, the calyx is furnished at its base, at the point of its articulation with the pedicel, with a distinct bract. In this plant, and in another from Moulmein, the flowers are axillary, and almost fasciculated in a very short raceme, but in Cuming's plant from Manilla, the inflorescence is in a spreading panicle, with numerous flowers upon lengthened pedicels. Blume, in his generic character of *Platea*, states that the flowers are dioecious, and that in the female flowers the corolla and stamens are altogether wanting. The same might almost be said of several species of *Stemonurus*, for as soon as the fertility of the ovarium is clearly discernible, the petals and stamens will be found to have fallen off, and from analogy we may safely conclude the same to have occurred in *Platea*. Mr. Griffiths in his manuscript note on *Phlebocalymna* says, "genus novum Icacinearum, familia singularis ob albumen in lobos divaricatos et tegumen seminis vasculosissimum:" this remark can hardly apply to his proposed genus, of which it does not appear that he had seen the seed, and it is more than probable that the allusion was made to *Bursinopetalum*, a genus placed by Dr. Wight (Icon. tab. 956) in the *Olacaceæ*, of which the *Icacinææ* had been universally held to be a tribe: in that genus, by the growth of the placentary column of the abortive cells, and its protrusion into the cavity of the fertile cell, the albumen becomes hippocrepically folded, and somewhat divided into two lobes, in the manner clearly demonstrated in the figure referred to. I have elsewhere shown that *Bursinopetalum* belongs to the *Aquifoliaceæ*. Blume in his 'Mus. Bot. Lugd.' gives a new generic character of *Platea*: this will require some modification, if we include in it *Phlebocalymna*, and with this view I now offer the following diagnosis:—

PLATEA, Blume. *Phlebocalymna*, Griffiths.—Flores hermaphroditi vel sæpissime abortu polygami: an unquam vere dioici? *Calyx* brevissimus, cupularis, 5-dentatus, dentibus in præflorationem imbricatis, persistens, sed non augescens. *Petala* 5, linearia, carnosula, æstivatione valvata, apice propendenti inflexo, marginibus rorido-glandulosis, imo in tubum laxè adhærentibus, e medio libera et reflexa, in flor. fem. fertil. cito decidua. *Stamina* 5, cum petalis inserta, iisdem alterna, fila-

menta interdum brevia, sæpe petalis fere æquilonga, linearia, compressa, imo cum petalis laxè adhærentia: *antheræ* ovato-oblongæ, basi breviter bifidæ, dorso affixæ, 4-loculares, 2-lobæ, lobis singulatim 2-locellatis, demum septicidis, et longitudinaliter evolutim dehiscentibus. *Pollen* globosum, reticulatum. *Ovarium sterile* disco 5-gono 10-striato piloso immersum; *fertile* liberum, conicum, pilosulum, disco annulari glabro insitum, abortu 1-loculare, ovula 2 juxta apicem loculi subcollateraliter suspensa. *Stylus* brevis, sulcatus, pilosus, dentibus 3 stigmatosis erectis terminatus, demum in discum magnum sessile pulviniforme fructus coronans auctus. *Drupa* baccata, monopyrena, *putamen* oblongum, lignosum, angulato-rugosum, 1-spermum. *Semen* structuram *Stemonuri* æmulans?—Arbores *Asiæ tropicæ*, folia elliptica, coriacea, glaberrima, vel juniora interdum subtus lepidota, breviter petiolata, flores perpauci in cymas vel racemos breves axillares dispositi, interdum fasciculati, sicce aurantiaci: fructus atro-purpureus.

1. *Platea excelsa*, Bl. Bijdr. 646;—arbor 80–100 ped., foliis oblongo-lanceolatis, acuminatis, integerrimis, subtus cinereo-virentibus.—Java.
2. *Platea latifolia*, Bl. Bijdr. 646;—arbor 40–60-ped., foliis ovalibus, acuminatis, basi parum attenuatis, integerrimis, costatis, subtus griseo-lepidotis.—Java.
3. *Platea Sumatrana*, Bl. Mus. Bot. Lugd. Bat. 249;—foliis e basi obtusata vel rotundata elliptico-oblongis, acuminatis, subcoriaceis, venosis, subtus cinereo-virescentibus.—Sumatra.
4. *Platea Griffithiana*, n. sp.;—ramulis substriatis, subrugosis, foliis oblongo-ovatis, e medio inferne paullo angustioribus, apice obtusiusculo breviter ac lineari-angustatis, coriaceis, utrinque pallidis et concoloribus, nervis inferne prominentibus, margine revoluta, petiolo brevi, canaliculato, racemo axillari, petiolo vix longiori, pedunculo pedicellisque aspero-pilosulis, floribus cum pedicellis articulatis, et hinc bracteatis; calycis glabri lobis ciliatis, petalis carnosulis, glabris, filamentis linearibus, compressis, imo latoribus, ovario brevissimo, sterili, disco pentagono immerso, stylo conico, piloso, dentibus tribus stigmatosis pube celatis.—Mergui.—*v. s. in herb. Lindl. et Hook.* (Griffiths, 849).

The leaves are $5\frac{3}{4}$ inches long, nearly 3 inches broad, on a deeply channelled petiole 4–5 lines in length; the raceme is about 7 lines long, few-flowered; the lobes of the calyx are distinctly imbricated; the petals conjoin by their margins in a tubular form, leaving the upper portion free and reflexed; the

filaments for half their length adhere to the petals, but are easily separated, they are narrow, linear, compressed, and three-fourths of the length of the petals; the anthers are filled with pollen.

5. *Platea Lobbiana*, n. sp.;—ramulis angulatis; foliis ellipticis imo subacutis, apice obtusiusculo subito attenuatis, glaberrimis, coriaceis, supra lucidis, utrinque pallidis et concoloribus, costa supra sulcatis, nervis utrinque prominulis, venis immersis, margine valde revolutis, pagina inferiori minute cavo-punctatis, petiolo brevi, tereti, flavescenti, transverse rugoso, superne paullo canaliculato; racemo brevissimo, axillari, petiolo vix longiori, floribus subfasciculatis, sicce aurantiacis, hermaphroditis, calyce piloso, petalis linearibus, glabris; ovario piloso, ovuligero, disco annulari glabro insito.—Moulmein.—*v. s. in herb. Hook. et Lindl. (Lobb, 385).*

The leaves in this species are $4\frac{3}{4}$ to $5\frac{3}{4}$ inches long, and $1\frac{3}{4}$ to $2\frac{1}{4}$ inches broad, on a rather slender terete petiole about $\frac{1}{4}$ inch in length: the flowers are hermaphrodite; the lobes of the calyx are imbricated; the petals adhere by their margins in a tubular form, leaving the upper portions free and reflexed; the filaments for half their length cohere to the petals, but are easily separated, they are narrow, linear and compressed, nearly the length of the petals; the pollen is globular and reticulated; the style is hollow, terminated by three erect obtuse teeth; the ovary is conical, hairy, seated on an annular glabrous disk; it is 1-celled, with two ovules collaterally suspended from near the summit of the cell.

6. *Platea Wightiana*. *Gomphandra polymorpha*, var. *Wight*, *Icon. tab. 933*;—foliis oblongis, apice obtusiusculo repente attenuatis, glabris; panicula axillari, divaricatim dichotomoramosa, folio 4-plo breviori, floribus aggregatis, staminibus exsertis, filamentis linearibus, apice latioribus.—Coonoor in Mont. Nielgherrensibus.

This is the plant to which I alluded when speaking of *Stemonurus* (*ante*, p. 37): although figured as the male plant of *Gomphandra polymorpha*, it would seem to be hermaphrodite, for the ovary, as shown in the section given in fig. 6, is represented as ovuligerous.

7. *Platea laxiflora*, olim *Stemonurus laxiflorus*, n. sp.;—ramis flexuosis, nodosis, ramulis teretibus, subglabris, rugoso-striatis; foliis oblongis, utrinque acutiusculis, apice repente attenuatis, utrinque glabris et concoloribus, venis subtus prominulis, petiolo subtenui canaliculato; paniculis solitariis vel

geminis, axillaribus, 3-chotomo-ramosis, et laxè divaricatis, pedunculis pedicellisque gracilibus parce pubescentibus, calyce corollaque glabris.—Ins. Philip.—v. s. in herb. Hook. et Lindl. (Cuming, 891).

The leaves are about $5\frac{1}{2}$ inches long and $1\frac{3}{4}$ inch broad, on a petiole 5 lines in length; the panicles are about $1\frac{1}{2}$ inch long, the peduncle and its widely spreading branchlets being long, slender, and nearly glabrous; the persistent calyx is smooth, with five small teeth; the petals are linear and thin in texture; these in the greater number of instances, together with the stamens, are wanting, having fallen away, as almost universally occurs in the female flowers of *Stemonurus* found in herbaria; and it is probably owing to this circumstance, that Prof. Blume, in his generic character of *Platea*, states that the female flowers are deficient of corolla and stamens. The stamens are the length of the petals, the filaments being quite free, very compressed and broad at the base, tapering above, thin, and almost membranaceous in texture, somewhat inflexed at their summit, where they are terete and affixed near the dorsal sinus of the anthers, which are oblong, 2-lobed, bifid and sagittate at base, and emarginated at the apex; the lobes are membranaceous, opened by a longitudinal fissure, the cells being quite void. The ovarium is cylindrical, as long as the stamens, and crowned with a sessile 5-lobed pulvinate disk, which is slightly umbilicated in the centre, where a short prominence is seen, this being the withered style and stigma: its single cell contains two large suspended ovules. It is worthy of remark, that in all the flowers retaining the corolla, I could find no instance in which the petals presented any appearance of opening, so that it is very probable that these, together with the stamens, in falling away retain the cylindrical form they present in the bud.

SARCOSTIGMA.

The following observations on the structure and affinities of *Sarcostigma* were completed in readiness for the press, when the last part of the 'Plantæ Javanicæ Rariores' made its appearance: in that important work we are favoured with an interesting account and an excellent figure of a new species of this genus from Java. The remarks there offered, in regard to the affinities of *Sarcostigma*, will be seen to be greatly at variance with my own deductions; and hence it becomes necessary that I should offer a few explanatory words on the subject. It would be presumptuous in me to attempt to contravene the inferences there deduced by the most profound botanist of our time, showing the relation which that genus bears to *Phytocrene*, *Nansiatum*, and

Iodes; but fully acknowledging all that is there affirmed, I may venture to show, that a yet stronger and much closer extent of analogy will be found to exist in the structure and development of the floral parts, as well as a greater approximation in habit, to what we find in *Stemonurus* and *Pennantia*. From the facts shown below, it will be seen that *Sarcostigma* accords with nearly all the essential characters I have endeavoured to establish in the preceding series of memoirs, as the leading features of the *Icacinaceæ*, viz. trees with alternate, glabrous, coriaceous, petiolated, exstipulate leaves; an axillary racemose inflorescence, with small flowers, more or less polygamous, and distinctly articulated on a short pedicel; a small cupshaped, persistent calyx supporting the fruit, and unchanging with its growth; a corolla of four or five fleshy, linear petals, with valvate æstivation, arising from the hypogynous or stipitated support of the ovarium; free stamens, equal in number to, and alternate with the petals; introrse 2-lobed anthers; an ovarium presenting a similar form, the same internal structure, and the subsequent development of that seen in *Stemonurus* and *Pennantia*, and a fruit, in all appearance, closely analogous to that existing in those genera. Hence it seems evident from the facts here shown, that wherever *Pennantia*, *Stemonurus*, and *Platea* are placed in the system, *Sarcostigma* should follow in juxtaposition with them, unless the evidence now wanting, of the structure of its seed, should tend to a different location. If therefore *Sarcostigma* be found to hold a relation with the *Phytocreneæ*, the questions will naturally arise, whether this hitherto dubious family should not be brought into a more proximate position in the system with the *Icacinaceæ*, or whether I have been in error in referring the genus under consideration to the latter family. The group of the *Phytocreneæ* was first proposed by Endlicher as a suborder of the *Menispermaceæ*, a family with which they hold little relationship. Prof. DeCaisne, if I mistake not, first pointed out the identity of *Phytocrene* with the *Gynoccephala* of Blume, a genus placed among the *Artocarpaceæ*: hence *Phytocrene* and *Nansiatum* were removed by Prof. Lindley and other botanists to that family. This conclusion appears to me to have been too hastily drawn, for the *Artocarpaceæ* differ from them essentially in their stipular leaves, the presence of only a single floral envelope, which is often imperfect or altogether wanting, in their having fewer stamens than the number of the lobes of its perianthium, in their bifid style, which is often basilar, in their ovarium, with only a single suspended ovule, which is amphitropal or orthotropal, and an exalbuminous seed, often erect, though sometimes pendulous, with a thickened testa, and thick, fleshy cotyledons, often unequal in size. *Phytocrene* is

very different in habit from any of the *Artocarpaceæ*, having exstipulate leaves, flowers with a regular and symmetrical calyx and corolla, stamens equal in number to the petals, an ovarium with two anatropal ovules, suspended from the summit of the cell, and a seed with a considerable quantity of albumen, enclosing an embryo with large foliaceous cotyledons, and a small inferior radicle. In regard to the structure of the seed of *Phytocrene*, our evidence is yet quite uncertain. Prof. Lindley (Veget. Kingd. p. 274) describes and figures an albumen of a very granular, or rather ruminated texture, enclosing two large foliaceous cotyledons, with a very small inferior radicle; and Mr. Brown, in his generic character, greatly confirms this view, by stating it to possess an embryo with large foliaceous cotyledons, enclosed in albumen. Prof. Blume, on the contrary (Mus. Bot. Lugd. Bat. p. 41. tab. 7), describes and figures the embryo as being quite exalbuminous, with large foliaceous crumpled cotyledons of a rugosely granular texture, possessing a short superior radicle: he here acknowledges *Phytocrene* to be identical with his *Gynocéphala*, the fruit of which he describes as consisting of an aggregation of several elongated drupes, upon a fleshy receptacle, forming a globe as big as a man's head. It must at the same time be acknowledged, that the extremely villous habit of *Phytocrene*, the peculiar structure of its woody stem, its closely aggregated flowers in globular heads, the membranaceous texture of its calyx and corolla, both clothed externally with very dense long hairs, and its peculiar stamens, present characters to which little resemblance can be traced in *Sarcostigma*. I urge these reflections, however, with extreme hesitation, in deference to the conclusions of an authority, whose determinations all botanists will regard with the highest consideration. It is to be regretted, however, that Mr. Brown has not favoured us with his views, and the reasons on which they are based, in regard to the real affinities of the *Phytocreneæ*; but he says decidedly that *Sarcostigma*, which in his opinion "so obviously belongs to" this group, bears no relation to *Hernandiaceæ*, to which family that genus had originally been referred by Drs. Wight and Arnott. We may, however, infer something more tangible on this point from his admission of "its near relationship" to *Pyrenacantha*, a genus with a single floral envelope, and other characters, that have led to its position near the *Antidesmeæ*. The genera *Phytocrene*, *Nansiatum*, and *Iodes* form a very natural group, possessed of consimilar features, offering constantly a regular calyx and corolla, divided into segments equal in number to the stamens, all alternating with each other in distinct series; they have therefore every claim to rank among the *Dialypetalæ* of Endlicher; but this disposition does not exist in *Miquelia*, a ge-

nus carefully figured and described by Prof. Blume (*loc. ante citat.*), and placed by him and Mr. Brown among the *Phytocreneæ*: this genus, with a very different habit, offers only a single floral envelope, with stamens alternate with its segments, and a 1-celled ovarium with two suspended ovules, characters similar to those of *Pyrenacantha*, from which it differs in its exalbuminous seeds: these two genera are therefore clearly referable to the *Apetalæ* of Endlicher, which are nearly equivalent to the *Monochlamydeæ* of DeCandolle. If *Sarcostigma* then be related to the *Phytocreneæ*,—an affinity which, if we accept, we must admit has not yet been demonstrated,—it is clear that it cannot bear any relation to the two genera before mentioned, which appear to have been associated with that group upon very insufficient grounds; and if, as above indicated, the *Phytocreneæ* be allowed to rank among the *Dialypetalæ*, it appears to me their position would not be far from the *Tiliaceæ* or *Dipterocarpeæ*, to which families they offer many analogous characters: from Prof. Blume's analysis, they would much resemble the latter in the structure of the seed; under Prof. Lindley's view, they would more nearly approach the former.

The observations that now follow were written several months ago, and as they are confined wholly to the description of facts, there is no occasion to retract anything there advanced in consequence of what is said above.

The genus *Sarcostigma*, to which I have alluded (*huj. op. ix. p. 223*) as belonging to the *Sarcostigmeæ*, one of the tribes of the *Icacinaceæ*, was founded in 1832 by Drs. Wight and Arnott, on an Indian plant collected by Dr. Klein, and described by them in the 14th volume of the 'Edinburgh New Phil. Journal.' Like *Desmostachys*, it is somewhat scandent in its habits, but it has large oblong leaves upon very short petioles, and, as in that genus, it has an extremely long and slender spicated inflorescence, studded at close intervals with fascicles of small flowers, which in drying retain their bright yellow colour, and are very deciduous, being articulated upon very short and almost obsolete pedicels. The flowers, in the only case I have seen, are all female, and their stamens, which are sterile, are alternate with the petals; the internal structure of the ovarium corresponds with the usual character of the order: in the form of its epigynous stigmatoid summit it resembles *Stemonurus*, and what I have stated concerning the nature of this part in that genus appears confirmed by the circumstances that occur here: in some cases this appears like a flat, glabrous, fleshy disk, with a depression in the centre, as in the following genus *Discophora*, but it seems afterwards to attain the form of a somewhat conical umbraculiform process, overhanging the ovarium, with a crenated

margin, and hollow in the centre. This process therefore, as in *Stemonurus*, would seem to be a growth subsequent to the period of impregnation: it will be remembered that a somewhat analogous succeeding development on the summit of the ovarium has been described in the case of *Apodytes*. In the rugous surface of its putamen, as recorded in the manuscript of Dr. Klein, it resembles *Mappia* and *Stemonurus*. Dr. Vogel collected another species, now first described, at Cape Palmas, on the Guinea coast of Africa; in its general appearance, the size and shape of its leaves, and in its singularly long, slender, spicated inflorescence, it bears a striking resemblance to Dr. Klein's plant and to that from Java, and although all the flowers have fallen off at the articulations with the pedicels, the identity of the genus cannot be mistaken. The following generic character has been derived, partly from my own observations as far as the specimen I have seen has afforded evidence, partly from Dr. Klein's original notes, and I have since added other features from Mr. Brown's description:—

SARCOSTIGMA, W. & A.—*Flores* polygami. *Calyx* minimus, breviter cupulatus, obtuse 5-dentatus, persistens. *Petala* 5, lineari-oblonga, glabra, imo disci stipitati adnata, æstivatione valvata, sub anthesi patentim reflexa, marcescentia et persistentia. *Stamina* 5, cum petalis inserta, iis alterna et æquilonga, in flor. fem. sterilia et subbreviora; *filamenta* linearia, compressa, in sterilibus apice antheris fere obsoletis 2-loba, (in fertilibus *antheræ* ovals, versatiles, loculis parallelis, approximatis, longitudinaliter dehiscentibus, sec. cel. R. Br.). *Ovarium* in flor. masc. parvum, sterile, pubescens, in flor. fem. cylindricum ventricosum pubescens, disco seu gynophoro breviter stipitatum, 1-loculare; *ovula* 2 ex apice loculi subcollateraliter superposita, podospermio carnosâ suspensa: (*stylus* brevis crassus et *stigma* capitatum sec. Klein): in ovario adulescente, *stylus* nullus, nisi id quod videmus in discum sessilem stigmoideum umbraculiformem margine crenatum centro cavum demum mutatum, et *stigma* verum centrale proinde obsoletum. *Drupa* oblonga, compressa, monopyrena; *putamen* rugosum; cætera ignota.—Frutices *Asiæ meridionalis, Javæ, et Africæ tropicæ, subscandentes*; folia *majuscula, alterna, oblonga, coriacea, glaberrima, breviter petiolata*; racemi *longissimi, graciles, simpliciter spicati e fasciculis 1-4-floris alternis*; flores *minusculi, sicce flavi, cum pedicellis fere obsoletis articulati, et cito caduci*.

1. *Sarcostigma Kleinii*, W. & A. Edinb. New Phil. Journ. xiv. 299;—subscandens, glaberrima, laxè ramosa, ramulis teretibus; foliis oblongis, basi rotundatis vel subacutis, apice ob-

tusiusculo acuminatis, et paullulo attenuatis (junioribus lanceolatis), coriaceis, supra pallidis, venis valde reticulatis prominulis, subtus stramineis, nervis venisque prominentibus, margine cartilagineo, petiolo subtenui, canaliculato, rugoso; racemo gracili, extra-axillari, folio magno multo longiori, floribus 1-4 minusculis, in fasciculis subsessilibus aggregatis, articulatis, calyce pilosulo, drupa ovali, breviter pedicellata.—India Orientalis ad Travancore.—*v. s. in herb. Hook. (Wight, 943, cum descript. cl. Doct. Klein).*

The branchlets are slender and somewhat scandent; the leaves are of a pallid hue on both sides, but a little more yellow beneath; they are of a very coriaceous substance, rather polished, with raised reticulations above, the margins somewhat revolute and cartilaginous, with the nervures and reticulated veins very prominent beneath; they are 6 to $8\frac{1}{2}$ inches long, $2\frac{3}{4}$ to $3\frac{3}{4}$ inches broad, on a short, deeply channelled petiole half an inch in length, and transversely rugous as in *Platea*; the raceme arises from the side of the stem opposite to that on which the petiole is inserted, as in some species of *Stemonurus*; it is about 11 inches long, very slender, and charged for nearly its whole length with clusters of few flowers, in which the calyx is somewhat pilose, but the petals are quite glabrous, and retain their yellow colour in drying; they are about a line in length. The drupe is supported by its calyx and corolla, both unchanged, withered, and persistent, upon the gynophorus, which is now elongated to a pedicel of the length of $1\frac{1}{2}$ line; it is 11 lines long, and 7 lines broad when dried; a single drupe alone remains in the specimen referred to. Dr. Klein in his manuscript note says, that several aggregated lengthened racemes sometimes grow out of the leafless nodes of the old wood*.

2. *Sarcostigma Vogelii*, n. sp.;—suffrutex glaberrimus, ramulis teretibus, subrugosis; foliis majusculis, oblongis, utrinque acuminatis, apice acute et breviter attenuatis, coriaceis, glaberrimis, supra pallidis, subtus flavescentibus, nervis venisque reticulatis et transversis prominentibus, petiolo brevissimo, canaliculato, rugoso; racemo spicato, extra-axillari, longissimo, gracili, floribus subaggregatis, articulatis, caducis; drupa carnosa, rubra, pendula.—Guinea ad Cap. Palmas.—*v. s. in herb. Hook. (Vogel, 25, 27 et 68).*

This plant was collected in the Niger Expedition by Dr. Vogel, who describes it as a shrub (*strauch*): it bears very much the habit and appearance of the former species, but the leaves are

* A drawing of this plant, with details of the structure of its female flowers, will be given in plate 18 of the 'Contributions to Botany,' &c.

not quite so thick in texture; they are smooth, somewhat undulating on the margins, 7 to 10 inches long, and 3 to 3½ inches broad, on a very short, channelled and rugous petiole, about 3 lines in length; the raceme is distantly extra-axillary, and inserted on the opposite side of the stem, as in the former species; it is 12 or 13 inches long, very slender, slightly pubescent and angular at base, for the length of about 3 inches, and in the remainder is glabrous and beset with alternate nodules, consisting of single or aggregated, very short pedicels, left bare by the falling away of all the articulated flowers. The fruit, according to Dr. Vogel's notes, is red, fleshy, oval and pendulous, and from his rough sketch of a transverse section it would appear to be somewhat compressed and to contain two seeds: if this be the case, it would bear out a still stronger analogy to the instance I have recorded in *Pennantia* *.

3. *Sarcostigma Horsfieldii*, R. Br. Pl. Jav. Rarior. 241. tab. 47.
—Java.

DISCOPHORA.

The characters that warrant the establishment of this genus are few, but when taken in conjunction with the peculiar habit of the plant and the different country of its origin, they serve to mark its place. The specimen upon which it is founded is a native of Guiana, with ovuligerous flowers which are far advanced, for the petals and stamens are fallen away, leaving only the calyx and ovarium, which is crowned with a discoid process: in the internal structure of the ovarium, and the form of its persistent calyx, articulated on its pedicel, it is strictly conformable with other genera of this family; and in the peltoid disk that crowns the ovarium it resembles *Sarcostigma*, *Pennantia*, and *Stemonurus*, all of Asiatic origin; but in this case this process is much smaller and somewhat reniform. In one instance I found a single petal remaining, just sufficient to mark its character. As it cannot be referred to any one of the genera above mentioned, I propose to call it *Discophora*, from *δίσκος*, *discus*, *φέρω*, *fero*. The few characters known may be designated in the following manner:—

DISCOPHORA, gen. nov.—*Calyx* minimus, brevissime cupuliformis, fere integer, obsolete 5-denticulatus, persistens. *Petalata* 5, linearia, glaberrima, textura tenui, nervo mediano longitudinali notata, cito caduca. *Stamina* ignota, mox decidua. *Ovarium* liberum, cylindricum, glabrum, 1-loculare; *ovula* 2, juxta apicem loculi superposita, podospermio crasso subcolla-

* This plant will be figured in plate 19 of the 'Contributions to Botany.'

teraliter suspensa, anatropa. *Stylus* cum *stigmatē* confusus, demum subreniformi-discoideus, parvus, subconcauus. *Fructus* ignotus.—Frutex *Guianensis*; folia *alterna, oblonga, majuscula, glaberrima, petiolata*; racemi *axillares, divaricatim ramosi*; flores *parvi, cum pedicellis articulati*.

1. *Discophora Guianensis*;—omnino glaberrima, ramulis teretibus, substriatis; foliis oblongis, utrinque acuminatis, apice lineari-angustatis, coriaceis, supra nitidis, nervis sulcatis, venis immersis, subtus fuscis, nervis rubentibus cum venis transversis prominentibus, punctis minutis resinosis notatis, margine revolutis, petiolo incurvo canaliculato; racemis axillaribus petiolo 2–3-plo longioribus, dichotome et divaricatim ramosis, pedicellis bracteatis, bractea oblonga obtusa crassiuscula pubescenti, floribus cum pedicello articulatis.—Demerara.—v. s. in herb. Hook. (Parker).

The branches are terete with a smooth bark; the axils are $1\frac{1}{2}$ to 2 inches apart; the leaves are quite smooth, thick, and coriaceous, 8 inches long, $2\frac{1}{2}$ inches broad, on a petiole of $\frac{1}{2}$ to $\frac{3}{4}$ inch in length: a raceme about $1\frac{1}{2}$ inch long springs out of each axil, sending out from the base upwards several alternate branches at nearly right angles, which are again divided; the branchlets and pedicels are slightly pubescent and furnished at their base with a short, obtuse, fleshy bract, covered with short fine hairs; the ovarium is 4 lines long, $1\frac{1}{2}$ line diameter; the stigmatiferous disk is about one-third of the diameter of the ovarium; the calyx and petals are quite glabrous; the latter are linear, submembranaceous, marked with three parallel nervures, and are of a reddish yellow colour when dry*.

XIII.—Upon the genus *Doliolum* and its species.

By Dr. A. KROHN †.

[With a Plate.]

Quoy and Gaimard describe and figure in their work, the 'Voyage of the *Astrolabe*' (p. 599. pl. 89. figs. 25–28), a small crystalline Tunicary not 2 lines long, which they first discovered at Amboyna, and subsequently found again on the coast of Vanikoro. For this animal they created a genus, to which they gave the very appropriate name of *Doliolum*, placing it in the near

* A representation of this species, with analytical details, will be seen in plate 20 of the 'Contributions to Botany.'

† Wiegmann's *Archiv für Naturgeschichte*, 1852. — Translated by Thomas H. Huxley, F.R.S., Assistant Surgeon R.N.