

P. latus, it descends from them and joins the marginal fasciole below their base, so that the anterior sides of the antero-laterals, and the single ambulacrum, want the peripetal fasciole. The specimen before us is so much crushed, that we cannot trace the band continuously all round the test, so as to describe its course with accuracy; it is possible that this species may form the type of a distribution of the fascioles distinct from any that is yet known. We have stated enough to show, that at least in this form there is a considerable deviation from the normal arrangement. The anus is large and oval, and near the dorsum; the mouth is wide and bilabiate, and situated near the border; the sternal portion of the interambulacrum is slightly convex, and thickly covered with an imbricated arrangement on the plates, on each of which a perforated tubercle is raised. The basal portions of the interambulacral pairs are covered with wider-set tubercles of the same size, and the entire upper surface of the test is crowded with small tubercles closely set together, and very uniform in size and arrangement. The mouth is surrounded by five petaloid poriferous ambulacra.

Affinities and differences.—The excentric position of the disc, with its four genital holes, and the petaloid poriferous ambulacra around the mouth, establish an affinity between this form and *Brissus*. The way in which the peripetal joins the marginal fasciole is similar to what exists in *Schizaster*, whilst the marginal fasciole, entirely encircling the test and passing round beneath the anus, is found only in *Pericosmus*. The excentral position of the apical disc and the shallowness of the ambulacral star form a sufficient diagnosis between this species and *P. latus*.

Locality and stratigraphical position.—Collected from bed No. 1, the Gozo marble at Malta, where it is rare.

[To be continued.]

XVII.—On the Genera *Pionandra*, *Cliocarpus* and *Pæcilochroma*.
By JOHN MIERS, Esq., F.R.S., F.L.S. &c.

PIONANDRA.

THE details of this genus as given in Lond. Journ. Bot. iv. 353, and in Ill. South Amer. Plants, i. 34. pl. 8 & 9, were first drawn up during my stay in the Organ Mountains in 1837, but not published till 1845, and while these were in type, Dr. Sendtner contributed to the Munich flora his genus *Cyphomandra*, identical with the above, so that by a month's priority in publication, the latter name has claimed the preference. I there divided *Pionandra* into two very distinct sections. 1. *Ceratostemon*,

which corresponds with Dr. Sendtner's genus, and is distinguished (as both names imply) by their fleshy and curved stamens, and more or less obconical style and stigma, which are often as short and thick as the ovarium itself. 2. *Euthystemon*, comprising those species noted for having the anthers much longer, thinner, and very straight; the style being slender, terete, with a much smaller clavate stigma: the analytical details of the former section are shown in plate 8, and of the second section in plate 9 of the work referred to. M. Dunal in his monograph of the genus, subsequently published in DC. Prodr. xiii. 387, amplifies Dr. Sendtner's *Cyphomandra*, by the introduction of the plants of my section *Euthystemon*, thus increasing the number of species to thirty-four; he classifies those of the former section into five, and of the latter section into three subdivisions, after Dr. Sendtner's plan, according to the relative lengths of the connective and the style. There are many circumstances that make it desirable to keep these two groups quite distinct, having such marked characters; and when Dr. Seemann submitted to my examination the Solanaceous plants of his Panama collection, I ventured, in describing a new species, to suggest to him my views on this head, when he had the kindness to publish them, together with my note on the subject, in his 'Botany of the Herald.' I there proposed to retain in Dr. Sendtner's genus *Cyphomandra*, those species where the anthers are much curved, often rostrate at the apex (as in *C. betacea* and *C. sycocarpa*); the cells being verrucosely crumpled in front, as in many *Melastomaceae*, and partly imbedded in a fleshy connective, which is dorsally gibbous at the base; the filaments broad and often dilated suddenly, being connected by their bases upon a fleshy ring adnate to the base of the corolla; the style being generally shaped like an inverted cone, more or less thick, and the fruit being a large oval berry, often used for culinary purposes as a substitute for Tomates. They are generally tall shrubs, with large fleshy cordate leaves, emitting a strong, unpleasant smell. This group consists of *Cyphomandra calycina*, *physaloides*, *sycocarpa*, *lobata*, *diploconos*, *floribunda*, *ciliata*, *fragrans*, *sciadostylis*, *premnæfolia*, *corymbiflora*, and *viridiflora*.

For the second group, I propose to retain my generic name of *Pionandra*, which will include those species formerly designated under the section *Euthystemon*, together with some others that will be indicated below. This genus differs from *Cyphomandra* in its lengthened, straight, erect, and narrower stamens, almost rostrate at the summit below the apical knob, which bursts obliquely in front, forming two bilabiate gaping pores; the pollen-cells also burst below by longitudinal fissures; it has like-

wise an elongated fusiform hollow style, with its small stigmatic glands wholly included. The latter genus, on the contrary, is remarkable for its thicker and shorter anthers greatly curved upon a fleshy gibbous connective, and for its peculiar style, which is generally short, thick, in the form of an inverted cone, with large distinct stigmatic glands in its mouth: these peculiar features are shown in plate 8 of the 'Illust. South Amer. Plants,' in plates 15, 16 and 17 of Dr. Sendtner in 'Flor. Brasil.' fasc. vi., and in plate 227 of Martius, 'Nov. Gen. et Spec. Bras.' The generic character of the genus *Cyphomandra* with a few omissions will therefore remain as formerly designated by me under *Pionandra* (Illust. South Amer. Plants, i. 34), while that of the latter genus, as now restored and modified, and of which I will add another species with pinnatifid leaves (as in *C. fraxinella*, Sendt.) collected by me in the Organ Mountains, may be summed up as follows:—

PIONANDRA, nob. (gen. reformatum). *Calyx* 5-partitus, persistens. *Corolla* hypogyna, tubo brevi, limbo amplo 5-partito, laciniis 5 lanceolatis, subtenuibus, æstivatione introflexo-valvatis. *Stamina* 5 æqualia, erecta, stylo circumdantia; *filamenta* brevissima, complanata, in anulum brevem tubo corollæ adnatum imo connata; *antheræ* magnæ, rectæ, superne rostratæ, 2-loculares, loculis elongatis ad connectivum parallele adnatis, rima longitudinali sæpe dehiscentibus, summo globoso-capitatis, hinc antice poris 2 transversim et oblique valvatis, valvibus bilabiatis latissime hiantibus. *Ovarium* oblongum, 2-loculare, placentis carnosiss utrinque dissepimento adnatis, multiovulatis. *Stylus* longiusculus, teres, subtenuis, apice longe incrassatus et hinc cavus. *Stigma* in cavo omnino immersum, glandulosum. *Bacca* pulposa, 2-ocularis. *Semina* numerosa: cætera ignota.—Suffrutices in America intertropica indigenæ, ramosissimæ; folia petiolata, subgemina, elliptica, — integra vel profunde lobata aut pinnatifida; racemi extra-axillares, flores secundi, pedicellis articulatis sæpe deciduis.

§ 1. *Folia integra*.

1. *Pionandra capsicoides*, nob. Ill. South Amer. Pl. i. 41. tab. 9. *Cyphomandra capsicoides*, Dun. in DC. Prodr. xiii. 396. *Solanum capsicoides*, Mart. Bot. Zeit. i. 78.
2. *P. divaricata*, nob. loc. cit. i. 41. *Witheringia divaricata*, Mart. Nov. Gen. Bras. iii. 75. tab. 228. *Cyphomandra divaricata*, Sendt. Flor. Bras. vi. 118; Dun. l. c. 397.
3. *P. laxiflora*, nob. *Cyphomandra laxiflora*, Dun. l. c. 397. *Solanum laxiflorum*, Dun. in h. Banks.
4. *P. oxyphylla*, nob. *Cyphomandra oxyphylla*, Dun. l. c. 396.

5. *P. Hartwegii*, nob. l. c. i. 43. *Cyphomandra*? *Hartwegii*, *Dun. l. c.* 401.
6. *P. velutina*, nob. *Cyphomandra velutina*, *Sendt. Fl. Bras.* vi. 120. tab. 17; *DC. Prodr. l. c.* 398.
7. *P. elliptica*, nob. *Cyphomandra elliptica*, *Sendt. l. c.* 121; *DC. Prodr. l. c.* 398. *Solanum ellipticum*, *Vell. Fl. Flum.* ii. tab. 100.
8. *P. cylindrica*, nob. *Cyphomandra cylindrica*, *Sendt. l. c.* 121; *DC. Prodr. l. c.* 399. *Solanum cylindricum*, *Vell. l. c.* tab. 119.
9. *P. coriacea*, nob. l. c. p. 43. *Cyphomandra*? *coriacea*, *Dun. in DC. Prodr. l. c.* 401.
10. *P. Cajanumensis*, nob. l. c. *Cyphomandra*? *Cajanumensis*, *Dun. in DC. Prodr. l. c.* 401. *Solanum Cajanumense*, *H. B. K.* iii. 47.

§ 2. *Folia pinnatisecta vel pinnata*.

11. *P. fraxinella*, nob. *Cyphomandra fraxinella*, *Sendt. l. c.* 122; *DC. Prodr. l. c.* 399. *Solanum Martii*, *Dun. MSS.*
12. *P. cornigera*, nob. *Cyphomandra cornigera*, *Dun. l. c.* 401.
13. *P. allophylla*, nob. in Seemann, *Bot. Herald*, p. 174.
14. *P. pinnata* (n. sp.);—subscandens, glabriuscula, dichotome ramosa, ramulis teretibus, fistulosis, junioribus brevissime pubescentibus; foliis distantibus geminis, altero breviori, impari-pinnatis, petiolo longissimo, imo subglabro, superne tomentoso, foliolis circiter 11, sæpe oppositis, interdum alternis, longe lanceolatis, anguste acuminatis, in texturam tenuibus, supra sparse pilosis, subtus pallidioribus, costa media nervisque hirsutulis, breviter petiolulatis, petiolulo tomentoso, folio terminali alteris longiori et longius petiolulato; racemo longe extra-axillari, elongato, imo nudo, sub-10-flore, floribus alternis, flavis, glabris, subsecundis, pedicellis longiusculis, pilosulis, apice valde incrassatis, imo articulatis, infimis deciduis.—
Brasilia (in Montibus Organensibus, Prov. Rio de Janeiro).

I found this plant on the skirts of the extensive forests of the Organ Mountains; the branchlets are green, smooth, round, marked with numerous minute whitish specks, woody but fistular, and somewhat flexuously geniculated at the nodes, which are 3 or 3½ inches apart. The leaves are about 10 inches long; the petiole diverges nearly at a right angle from the stem, and is bare for the length of 2 inches; the leaflets are generally in opposite pairs, about 1 inch apart, though often alternate; the lowermost are shorter, scarcely more than an inch long, upon tomentose petioles of a line in length; the upper ones are 3 inches long, 7 lines broad, on a petiole of 1½ line; and the terminal one

is 8 lines broad and 4 inches long, exclusive of its petiole of half an inch. The raceme issues from the stem upon the same side as the leaf, but at a distance of 2 inches above the axil; it is quite glabrous, about 5 inches long, the lower portion for a length of 3 inches being bare of flowers, but from this point eleven pedicels, each bearing a single flower, spring alternately; they are suddenly thickened below the calyx, are about 8 lines long, and are articulated at their base, the lower ones generally falling away, and leaving cicatrices at the points of their insertion. The calyx is short, with five triangular teeth; the corolla is about 5 lines long, has a short tube scarcely exceeding a line in length, the border being divided into five equal, oblong segments, which are quite smooth, with woolly margins: the stamens are the length of the corolla, the filaments are extremely short, and arise from an adnate 5-toothed ring fixed to the tube; the ovary is short, smooth, not longer than the calyx; the style is slender, somewhat thickened above, and hollow for half its length*.

CLIOCARPUS.

It is now more than five years since I proposed this genus for a Brazilian plant collected in the province of Minas Gerães by my friend the late Mr. Gardner. The generic outline given (*hu*). *op.* iv. 141) was incomplete, as I had then only seen it in fruit, but I am at length able to add its floral character. The appearance of its saccate ventricose calyx and berried fruit led me to suppose it offered most analogy with *Nicanandra*, but this I find is not the case, as it belongs to the true *Solanaceæ*, and to the tribe *Solaneæ*, taking its place between *Pionandra* and *Triquera*. In the structure of its stamens and style there is much resemblance to the former genus: the anthers are erect; the lobes are long, parallel, and contiguously adnate upon a dorsal furrowed connective; they are thin in texture, each being 2-locellate, owing to the existence of a somewhat oblique, slender, complete partition that divides each lobe, which is 2-valvular, and its dehiscence takes place by a longitudinal slit near the outside of the anterior face, caused by the separation of the margins of the valves from the edge of the contracting partition, so that after bursting, each lobe thus appears to be unilocular: this separation is more constant at the summit, where the line of dehiscence crosses the face diagonally towards the middle of the anther, when the broad upper valve is thrown back in an auricular form and into an erect position, while the narrower lower lip is reflected downward, thus showing a broad oblong gap divided by the line of the septum, and forming a continu-

* A drawing of this plant with its floral analysis will be given in plate 74 of 'Illustr. South Amer. Plants.'

ation of the lateral fissure: each anther is deeply 2-lobed at its base, and is attached at the bottom of its dorsal groove to the apex of a sigmoid-shaped filament, which crosses it abruptly to the front, so that the anther appears fixed astride upon it: the filaments are short and closely surround the ovary, they are compressed, somewhat broad, deeply channelled, being often enlarged in the middle by two auricular erect margins; they are joined together by a narrow, fleshy, annular ring, which is united by its base to the foot of the corolla. The calyx is formed of five lanceolate, acute leaflets distinct nearly to its base, which consists of a small inverted cup, having five saccate cavities alternating with the segments; these segments are at first expanded, but after the fall of the corolla they collapse, increase considerably in size, become yellowish, reticular, and more membranaceous in texture; their margins approximate and turn outwards, thus forming a somewhat pointed, 5-toothed, globosely ventricose pentagonal tube with salient winged angles, which are saccate at their base as above mentioned, thus greatly resembling in shape that of *Nicandra* or *Physalis* in fruit: the segments are densely covered on both sides with glandular, simple, and stellated hairs intermixed. The corolla is nearly the length of the calyx, is cleft almost to the base, where it is briefly tubular; the segments, which scarcely exceed the stamens in length, are expanded, smooth inside, with a keeled medial nervure, and outside are densely tomentose with stellated pubescence. The ovary is conically ovate; the style is slender, erect, fusiform at the apex, and terminated by two minute teeth: the berry is round, about the size or smaller than a common pea, 2-celled, and contains a few large, compressed, reniformly-orbicular seeds. I have ascertained that the *Solanum megalochiton* of Dr. Sendtner, and *S. didymum* of M. Dunal, both belong to this genus; *S. eriocalyx*, from its description, also appears to be congeneric with them, and probably other species of *Solanum*, enumerated by M. Dunal in his monograph, will find a place here. Its generic features may be thus described:—

CLIOCARPUS (char. reform.). *Calyx* profunde 5-partitus, utrinque stellato-tomentosus, rarissime simpliciter pilosus, imo patellaris, circa pedicellum umbraculiformis, et secus sinu 5-saccatus, laciniis expansis, lanceolatis, acutis, in fructu auctus, tunc laciniis erectis (ut in *Nicandram*) marginibus refractis hinc valvatim conniventibus, tubo ventricosum carinato 5-gonum ore 5-dentato fere clauso simulantibus. *Corolla* subrotata, calyce plus minusve æquilonga, 5-fida, laciniis æqualibus, tubo æquilongis vel longioribus, subacutis, apice inflexis, extus tomentosis, intus glabris, nervo medio

prominulo. *Stamina* 5, æqualia, corollæ fere longitudine; *filamenta* brevissima, glabra, ex annulo carnosio imo tubi adnato 5-sinuato orta, valde sigmoidea, complanata, sulcata, apice acuta: *antheræ* magnæ, erectæ, circa stylum conniventes, oblongæ, 2-lobæ, 4-locellatæ, basi breviter bifidæ, ad imum sulci dorsali affixæ, lobis sine connectivo conspicuo parallele adnatis, sulco longitudinali et summo præcipue utrinque rima antica obliqua valvatim late hiantibus, valvula superiori hinc erecta auriculæformi, inferiori fere obsoleta. *Ovarium* glabrum, subrotundum, 2-sulcatum, 2-loculare, ovulis plurimis dissepimento placentifero carnosio utrinque adnatis. *Stylus* simplex, filiformis, staminibus dimidio longior. *Stigma* minutum, brevissime bifidum, dentibus acutis, divaricatis vel adpressis. *Bacca* calyce aucto inclusa, subglobosa, 2-locularis: *semina* pauca, reniformia, compressa, *testa* scrobiculata, *hilo* in sinu laterali; *embryo* teres, in *albumen* carnosum spiraliter arcuatus, *cotyledonibus* semi-teretibus, *radicula* angulo basali spectante, *hiloque* evitante sub-3-plo brevioribus.—Frutices—*Brasilienses*, *pilis simplicibus* (plerumque cum stellatis intermixtis), *dense tomentosi*: folia *alterna*, vel sæpe *gemina*, altero *minori*, *integra*, *oblonga*, *acuta*, imo *obtusa*, interdum *cordata*, *breviter petiolata*: flores *extra-axillares*, *solitarii* aut *bini*, vel in *racemo sub-umbellæformi plures aggregati*, *pedicellis longis*, *filiformibus*, *fructiferis cernuis*.

1. *Cliocarpus Gardneri*, nob. huj. op. iv. 141; Ill. South Amer. Pl. ii. 35; DC. Prodr. xiii. 675;—fruticosus, subdichotome ramosus, ramis tomentosis; foliis obovatis, e medio acuminatis, basi subrotundatis, sæpe geminis, altero dimidio vel paullo adhuc minori, crassiusculis, supra læte viridibus et pubescentibus, subtus densissime cano-vel flavido-tomentosis, pilis simplicibus cum alteris stipitato-stellatis intermixtis, nervis venisque supra impressis, subtus prominulis et flocculosis, petiolo brevi, crassiusculo: floribus extra-axillaribus, solitariis vel 2-4-fasciculatis, pedunculo obsoleto, pedicellis filiformibus, quam congeneribus longioribus, in fructu deflexis et magis elongatis; bacca pisi majoris magnitudine, nigra, calyce aucto subvesiculari flavo-membranaceo reticulato clausa.—Brasilia, Prov. Minas Geræes.—v. s. in *herb. Hook.* (Arraial das Mercês, Gardner, no. 5042).

This plant in fruit has been already described, as above quoted, but I have since found flower-buds, which, though very young, are quite sufficient to identify the same structure as in the two following species; the only difference being, that here the corolla seems to be more deeply cleft than in the others.

2. *Cliocarpus megalochiton*. *Solanum megalochiton*, *Mart. and Sendtn. Fl. Bras.* vi. 28. tab. 9; *DC. Prodr.* xiii. 124;—dichotome ramosus, ramulis divaricatis, inferne glabris, superne hirsuto-tomentosis; foliis non raro geminis, altero multo minori, ovatis vel ovato-lanceolatis, acuminatis, basi rotundatis, inæquilateris et oblique subcordatis, supra fusco-viridibus, velutinis et sparse villosulis, subtus griseo-tomentosis et pilis stipitato-stellatis densissime tectis, nervis arcuatis venisque superne impressis, subtus valde prominentibus, petiolo brevi tomentoso; racemis paucifloris, terminalibus, dein laterilibus et suboppositifoliis, pedicellis pedunculo brevioribus, creberrime secundis, imo articulatis, inferioribus valde deciduis, superioribus 3–8 pseudo-umbellatis, demum in fructu deflexis, quam præcedenti multo brevioribus; calyce etiam persimile sed paullo minori; corolla intus cærulea? et glabra, extus stellato-tomentosa, filamentis brevibus, medio auriculatis, marginibus inflexis; stylo tenui, staminibus dimidio longiori, apice brevissime divaricato-2-dentato: bacca nigra, pisi minoris magnitudine.—*Brasilia*, Prov. Rio de Janeiro.—*v. s. in herb. Mus. Brit.* (*Bowie et Cunningham ad S. João Marcos*) *sub nom. Cl. Dunalii* “*Solanum melanocarpum* et *Solanum laxum*.”—*in herb. Hook.* (*Claussen*).

This species appears to have been collected by Dr. von Martius and by Schott in the Corcovado range, by Llhotsky in the Organ Mountains, who considered it to be a *Physalis* on account of its ventricose calyx, and was also found by Sello in other parts of the same province. It is readily distinguished from the former species by its more lax habit, more divaricate branches, and its different inflorescence. Its leaves are from 2 to 3 inches long, 1 to $1\frac{1}{2}$ inch broad, on a petiole of 2 lines. The peduncle of the raceme is from 6 to 9 lines long, sometimes even shorter; its pedicels 4 to 6 lines in length when in flower, and 9 lines in fruit: the flower expanded is about 8 lines in diameter; the calyx when collapsed in fruit is about 5 lines in diameter, and when its segments are expanded, according to Dr. Sendtner, 12 to 15 lines across: the berry when ripe is smooth and black, 4 lines in diameter, and contains about sixteen seeds. M. Dunal describes two varieties in the ‘*Prodromus*,’ citing as his authority, plants observed by him in the British Museum; but I find there only a single specimen with two separate tickets attached to it, bearing his autograph names of *Solanum melanocarpum* and *Solanum laxum*, from which we may infer that his notes have been taken at different times, and after a lapse of many years concluded to be those of two separate plants*.

* The floral details of this plant are given in the drawing of the preceding species in plate 44, ‘*Illustr. South Amer. Plants*.’

3. *Cliocarpus didymus*. *Solanum didymum*, *Dun. in DC. Prodr.* xiii. 125 (*olim S. divaricatum*, *Dun. MSS.*). *Solanum gemellum*, *Mart. & Sendtn. Flor. Bras.* vi. 28 ;—valde dichotomoramosus, ramulis divaricatis, teretibus, primum ochraceo- et fusco-tomentosis, dein glabris ; foliis supremis geminis, altero ter quater ve minori, brevissime petiolatis, ovatis vel ovato-lanceolatis, apice acuminatis, basi inæqualiter rotundatis, vix cordatis, supra velutinis, subtus molliter albido- ochraceo- vel ferrugineo-stellato-tomentosis, nervis arcuatis, sub 5-jugis, venisque superne impressis, subtus prominentibus et flocculoso-tomentosis ; floribus cymoso-racemosis, confertis, paucis, dense stellato-tomentosis, terminalibus dein lateralibus et oppositifoliis, pedicellis pedunculo brevissimo duplo longioribus, quam præcedentibus brevioribus ; calycis laciniis oblongis, subito acutis ; corolla calyce paullulo longiori, semi-5-fida, campanulato-rotata, intus glabra ; staminibus corolla dimidio brevioribus, hiatis apicalibus latis, cum rimis longitudinalibus continuis ; ovario brevi, stylo tenui, demum longe exserto, stigmatibus fere obsolete ; bacca subovali, piso minori, lævi.—*Brasilia*, in provinciis interioribus.—*v. s. in herb. Mus. Brit. (Bowie & Cunningham)* Prov. S. Paulo *sub nom. Cl. Dunalii* “*Solanum divaricatum.*”—*in herb. Hook. (Claussen)* Cachoeira do Campo Prov. Minas Gerães.

This species was found also by Sello in the province of San Paulo. M. Dunal describes the varieties of *glabrum* and *tomentosum*, but they seem to be different states of the same plant varying with its age. Its leaves are from 2 to 4 inches in length, 8 to 13 lines in breadth, upon a petiole 2 to 4 lines long : the peduncle of the inflorescence is not more than 4 to 6 lines in length, often much shorter ; the pedicels being 2 to 4 lines long, and when in fruit 6 to 8 lines in length ; the corolla expanded is 8 lines in diameter ; the stamens are 2 lines long ; the enlarged calyx enveloping the fruit forms a sphere of 8 lines in diameter.

4. *Cliocarpus? eriocalyx*. *Solanum eriocalyx*, *Dun. in DC. Prodr.* xiii. 124 ;—ramis divaricatis, flexuosis, piloso-scabriusculis, ramulis foliis utrinque, pedunculo, pedicellis, calyce quaquaversus, corollaque extus pilis longis simplicibus hirsutis, foliis sæpe geminis, altero minori, ovato-oblongis, acuminatis, basi inæqualibus frequenter auriculatis, ciliatis, flavicantibus, costa media nervisque prominulis, petiolatis, folio altero ter quaterve minori, ovato-rotundato, subsessili ; racemis brevibus, hirsutis, sub-oppositifoliis, 7-8-floris, pedicellis elongatis, filiformibus, confertis, sub-umbellatis : calyce rufescente, pilis sordide albis hirsutis, laciniis ovato-oblongis, apice subnudis ; corolla semi-5-fida, laciniis lanceolatis, acutis ; antheris gracilibus, linea-

ribus, apice præcipue auriculato-hiantibus; stylo filiformi; bacca subglobosa, calyce amplo obvoluta.—Brasilia (Lund).

This plant, from the above details founded on the description of *M. Dunal*, appears to conform closely with the three preceding species in all respects, except in the mention of stellated pubescence intermixed with simple hairs: as it is arranged by *M. Dunal* between the two last-described species, it may be safely inferred to be congeneric with them. The leaves are said to be 2–2½ inches long, 10 to 13 lines broad, on a petiole 1 or 2 lines in length: the twin leaf is 7 lines long and 6 lines broad: the peduncle is 2 or 3 lines long, with seven or eight almost umbellate slender pedicels 7 to 9 lines long: the calyx is 4 or 5 lines in diameter.

PÆCILOCROMA.

As it is always better to retract an error when its ill tendency becomes apparent, I do not hesitate to do so in the following cases. Not long since (*huj. op.* xi. 92 & 93), bearing in view the fact I had discovered, that the typical species of *Witheringia*, L'Hér., belonged to the genus *Sarracha* of the 'Flora Peruviana,' and under the influence of too much eagerness to follow the strict rule of science, I recommended that all the plants of this latter genus should be called *Witheringia*, as a title of older date; also that the name of *Pæcilochroma* should be suppressed, and its different species referred to *Sarracha*. Several of my botanical friends have pointed out to me the great inconvenience of changing the names of plants so numerous and so long known and cultivated in our gardens, adding that it is always desirable on the score of expediency to forego a rigid law, where the adoption of it is attended with so much inconvenience, by the multiplication of puzzling synonyms. Fully impressed with the force of this argument, I propose to adhere to my original plan of retaining the name of *Witheringia*, as defined by Von Martius, for the plants enumerated *huj. op.* iii. 141, and preserving that of *Pæcilochroma* as before established, while *Sarracha* will remain attached to those plants by which they have been extensively known for so many years. The synonyms recommended (*huj. op.* xi. p. 92 & 93) should consequently be expunged, when the species will stand thus:—

	Ill. So. Am. Pl.	DC. Prodr.
1. <i>Sarracha solanacea, nob.</i> (<i>Witheringia id.</i>) ...	ii. 21	xiii. 402
2. — <i>villosa, Don</i>	ii. 16	xiii. 430
3. — <i>contorta, R. & P.</i> ...	ii. 16	xiii. 430
4. — <i>Zuccagniana, R. & S.</i>	ii. 16	xiii. 430
5. — <i>biflora, R. & P.</i> ...	ii. 16	xiii. 431
6. — <i>procumbens, R. & P.</i>	ii. 16	xiii. 431
7. — <i>umbellata, G. Don</i> ...	ii. 16	xiii. 431
8. — <i>alata, Dun.</i>	xiii. 431

	Ill. So. Am. Pl.	DC. Prodr.
9. <i>Sarracha jaltomata</i> , Schl. (<i>Witheringia</i> id.)...	ii. 16	xiii. 432
10. — <i>allogona</i> , Schl.	ii. 16	xiii. 432
11. — <i>dentata</i> , R. & P.	ii. 16	xiii. 432
12. — <i>viscosa</i> , Schr.	ii. 16	xiii. 433
13. — <i>ciliata</i> , nob.	ii. 16	xiii. 683
14. — <i>propinqua</i> , nob.	ii. 17	xiii. 683
15. — <i>diffusa</i> , nob.	ii. 17	xiii. 683
16. — <i>laxa</i> , nob.	ii. 18	xiii. 683
17. — <i>auriculata</i> , nob.	ii. 18	xiii. 683
18. — <i>conspersa</i> , nob.	ii. 19	xiii. 684
19. — <i>glabrata</i> , nob.	ii. 19	xiii. 684
20. — <i>acutifolia</i> , nob.	ii. 19	xiii. 684
21. — <i>vestita</i> , nob.	ii. 20	xiii. 684
22. — <i>glandulosa</i> , nob.	ii. 20	xiii. 684
23. — <i>Miersii</i> , Dun. (<i>S. diffusa</i> , nob. bis) ...	ii. 22	xiii. 684

	Ill. So. Am. Pl.	DC. Prodr.
1. <i>Pecilochroma punctatum</i> , nob.	i. 153	xiii. 495
2. — <i>frondosum</i> , nob.	i. 154	xiii. 495
3. — <i>guttatum</i> , nob.	i. 155	xiii. 495
4. — <i>maculatum</i> , nob.	i. 156	xiii. 495
5. — <i>Lobbianum</i> , nob.	i. 157	xiii. 496
6. — <i>Lindenianum</i> , nob.	i. 157	xiii. 496
7. — <i>Quitoëense</i> , nob.	i. 157	xiii. 496
8. — <i>Boisseri</i> , Dun.		xiii. 495
9. — <i>Funkiana</i> , Dun.		xiii. 687
10. — <i>Sellowiana</i> , nob. (<i>Witheringia</i> id., <i>Sendt.</i>)		iii. 403

	Ill. So. Am. Pl.	DC. Prodr.
1. <i>Witheringia picta</i> , Mart. ...	ii. 5 (<i>Athenæa</i> id., <i>Sendt.</i>)	xiii. 458
2. — <i>pogogena</i> , nob.	ii. 5	xiii. 459
3. — <i>micrantha</i> , nob.	ii. 5	xiii. 460
4. — <i>Schottiana</i> , nob.	ii. 5	xiii. 461
5. — <i>Pohliana</i> , nob.	ii. 5	xiii. 461
6. — <i>Martiana</i> , nob.	ii. 6	xiii. 462
7. — <i>hirsuta</i> , nob.	ii. 6	xiii. 463
8. — <i>anonacea</i> , nob.	ii. 6	xiii. 463

The seven new species of *Witheringia* from Chile enumerated by Remy (Walp. Ann. iii. 160) do not appear to belong to this genus: the four last seem related to *Solanum tuberiferum*, Dun. (olim *Witheringia montana*, Dun., *Solanum montanum*, R. & P.), but the floral characters there given are not sufficient to determine their true place.

XVIII.—On the Discovery of *Viviparous Fish in Louisiana*.*

By B. DOWLER, M.D.

IN the month of October 1854, through the politeness of J. C. B. Harvey, M.D., of Tchoupitoulas Street, I received a small osseous fish, caught in the New Orleans Canal, which connects the city with Lake Pontchartrain. This fish had been placed in a basket containing crabs, one of which wounded it slightly in the abdomen near the cloaca, thereby exposing

* From Silliman's Journal for Jan. 1855.