

UNDESCRIBED PLANTS FROM GUATEMALA AND OTHER CENTRAL AMERICAN REPUBLICS. XXII.¹

JOHN DONNELL SMITH.

(WITH PLATE I)

Xylosma Turrialbanum Donn. Sm.—Folia magna oblongo-elliptica longe obtuseque acuminata in basin obtusiusculam aut retusam angustata membranacea integerrima glabra minute pel-
lucido-punctata venis venulisque transversis subparallelis. Flo-
rum masculinorum pedicelli fasciculato-congesti floribus 4-5-plo
longiores ad tres partes longitudinis articulati. Sepala 5. Sta-
mina 15 sepalis paulo breviora. Discus subinteger, glandulis
nullis.

Ramis spiniformibus 1-7^{cm} longis armatum, his florum fasciculis saepe
ornatis. Folia 9-13^{cm} longa 3-5^{cm} lata pellucida basi nonnunquam minute
bilobata, nervis lateralibus utrinque 6-8 subtus prominulis, petiolis 5-10^{mm}
longis. Pedicelli indefiniti 9-11^{mm} longi pubescentes, bracteis pilosis, brac-
teolis rudimentariis. Sepala oblongo-ovata 3^{mm} longa parce pubescentia.
Filamenta 2^{mm} longa infra medium pubescentia, antheris elliptico-globosis
dorso affixis. Discus annularis carnosus 2^{mm} diametralis ciliolatus ceterum
glaber. Flores feminini fructusque ignoti.—Inter species Americanas foliis
integerrimis insigne.

¹In fundo Aragon vocato in declivibus Turrialbanis sito, Costa Rica, alt.
630^m, Jan. 1899, *Pittier*, no. 7518 Pl. Guat. &c., qu. ed. Donn. Sm. (n. 13217
herb. nat. Cost.).

Monnina saprogena Donn. Sm. (§ *HEBEANDRA* Chodat, Bull.
Herb. Boiss. 4: 243.)—Folia estipulata crassiuscula glabra lan-
ceolata-elliptica acuminata in petiolum attenuata, nervis lat-
eralibus utrinque 3-4 erecto-patentibus distinctis ante marginem
evanidis supra subimmersis, venis obsoletis. Racemi paniculati,
floribus pedicellos paulo superantibus. Sepala interiora per duas
partes connata. Carina subintegra. Discus conspicue unilat-
eralis, ovario dimidiato-elliptico glabro uniloculari. Fructus

¹Continued from BOT. GAZ., 27: 443. 1899.
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inaequilateralis oblongo-ovatus acutiusculus bicarinatus et bico-status indistincte areolatus.

Arbuscula (Tonduz in schedula), caulibus teretibus glabris. Folia 6-9^{cm} longa 2-3^{cm} lata, petiolis 6-7^{mm} longis. Paniculae terminales et subterminales puberulae laxiflorae 10-16^{cm} longae, bracteis ovatis 4^{mm} longis ciliatis cito deciduis, pedicellis 3-4^{mm} longis, floribus 6^{mm} longis. Sepala pubescentia ciliataque, exteriora inferiora ovalia, superius majus ovatum 2.5^{mm} longum, alae orbiculares 5^{mm} diametrales extus pube punctatae e basi distincte nervosae. Carina ad apicem biplicata, petalis interioribus intus cum vagina staminea cano-pilosis, limbo lingulato 3^{mm} longo. Stylus complanatus ovario bis longior. Fructus glaber sublaevis 6^{mm} longus 2.5^{mm} latus, disco gibboso glanduliformi.

✓In truncis putridis, La Palma, Costa Rica, alt. 1542^m, Aug. 1898, *Tonduz*, no. 7406 Pl. Guat. &c. qu. ed. Donn. Sm. (n. 12501 herb. nat. Cost.).

MYRODIA GUATEMALTECA Donn. Sm., BOT. GAZ. 16: 2. 1891.—Hujus speciei e floribus nondum plane evolutis descriptae specimina typica cum *Quararibea Guyanensi* Aubl. satis congruunt. Ejusdem plantae exempla Guatemalensia nuper a Barone de Tuerckheim transmissa et flores evolutos et fructus praebent.

Heliocarpus Donnellsmithii Rose.—Mature leaves nearly orbicular, not lobed, rounded at base, shortly acuminate (tips mostly broken), glabrous and shining above, nearly glabrous below, 3 to 5-palmately veined from the base, somewhat glandular-toothed especially at base; inflorescence a large spreading panicle; sepals not appendaged; stipe slender, 5^{mm} long; body of fruit oblong, 5^{mm} long, somewhat hairy, becoming glabrate and rugose in age.

Near Arenal, Department Alta Verapaz, Guatemala, alt. 1500^m, April, 1889, *John Donnell Smith*, n. 1722 (type); Coatzacoalcos, Isthmus of Tehauntepec, State of Vera Cruz, Mexico, 1895, *Charles L. Smith*, n. 1002.

This species is very different from the numerous Mexican species, and is near *H. Americanus Schumanni* Baker, but has more glabrous leaves and an absence of hairs both on leaves and inflorescence. Mr. Baker's variety seems to me to deserve specific rank.

EXPLANATION OF PLATE I.—Branch two thirds natural size; fruit $\times 3$.

Villaresia Costaricensis Donn. Sm.—Folia oblongo-elliptica utrinque praesertim apice acuminata submembranacea diaphana



HELIOARPUS DONNELLSMITHII Rose, n.sp.

pellucido-punctulata integra, costa cum nervis lateralibus utrinque 4-5 venisque subtus conspicua. Racemi extra-axillares terminalesque foliis breviores spiciformes, glomerulis subsessilibus inferne dissitis. Sepala ovata pilosa. Petala glabra oblongo-elliptica sepalis vix bis longiora. Stamina petala paene aequantia. Ovarium pilosum ovoideum 1-loculare. Drupa magna olivaeformis.

Ramuli petiolique recentiores puberuli. Folia glaberrima aetate provectiore subcoriacea 9-12.5^{cm} longa 4.5-5^{cm} lata, petiolis crassis canaliculatis 5-7^{mm} longis. Racemi pubescentes singuli, floriferi 3-5^{cm} longi, fructiferi incrassati usque ad 8^{cm} longi, floribus 3-8 in pedicello crasso 1-2^{mm} longo sessilibus. Sepala 1.5^{mm} longa. Petala quincuncialia apice cuspidata inflexo-valvata 2.5^{mm} longa. Stamina glabra, antheris cordato-ovalibus 1^{mm} longis. Ovarium biovulatum cum stylo brevissimo glabro adjecto petala paene aequans, stigmate obliquo nudo. Drupa pedicello vix ullo insidens 2.5^{cm} longa 1.5^{cm} lata atque crassa apiculata in sicco nigrescens et reticulata, semisepto 5^{mm} lato, seminis testa pallida et atro-venosa.— Genus in America circulum aequinoctialem adhuc non obvium.

In silvis prope Copey, Prov. Cartago, Costa Rica, alt. 1800^m, Febr. et Mart. 1898, *Tonduz*, nn. 11664, 11995, 11791 herb. nat. Cost.

Blakea tuberculata Donn. Sm. (§ EUBLAKEA Triana.)—Rami crassi teretes cum petiolis pedunculis bracteis et foliorum tergo ferrugineo-furfuracei et -strigillosi. Folia ovato-orbicularia abrupte caudato-acuminata basi rotundata supra glabra. Flores fasciculati brevissime pedunculati inter maximos. Bractee exteriores usque ad mediam connatae calycis tubum paulo superantes, interiores breviores omnino connatae. Calycis limbus ovali-cylindricus tubum aequans intus coloratus et tuberculatus, lobi retroflexi limbo bis longiores. Petala utrinque tuberculata cum staminibus basi limbi inserta. Genitalia limbo inclusa.

Folia uniuscujusque paris aequalia 13-21^{cm} longa 10-15^{cm} lata coriacea praetermisso utroque nervulo marginali trinervia, nervis in caudam oblongam 9^{mm} longam excurrentibus, venis transversis 3-4^{mm} inter se distantibus, petiolis robustis 4-6^{cm} longis. Pedunculi 3-6-fasciculati crassi 6-10^{mm} longi. Flores diametro 6.5^{cm}, bracteis crassis opacis, exterioribus late orbicularibus 2^{cm} longis uninerviis siccitate retroflexis et margine involutis, interioribus 1.5^{cm} longis margine crispato-plicatis. Calycis tubus campanulatus glaber, limbus 1^{cm} altus 12^{mm} latus carnosulus extus strigillosus in alabastro petala usque ad

duas partes includens, lobi oblongo-ovati herbacei nervosi supra furfuracei subtus strigillosi jam ante anthesin e basi arcte retroflexi. Petala glabra oblongo-obovata 2.5–3^{cm} longa late unguiculata carnosula rosea. Stamina in sicco rubescentia, antheris pendulis dolabriformibus acute calcaratis 8^{mm} longis filamenta subaequantibus. Ovarium diametro 9^{mm}, centro in rostrum oblongo-conicum 5^{mm} longum apice denticulatum productum, stylo gracili 1^{cm} longo, stigmate punctiformi. Baccae non suppetunt.—*B. grandiflorae* Hemsl. proxima.

Limbus propter exsiccationis pressionem diruptus limbum in herbario 6-fissum lobis appendiculatum simulat.

✓Ad pascuorum margines prope La Palma, Prov. San José, Costa Rica, alt. 1550^m, Aug. 1898, *Tonduz*, n. 7363 Pl. Guat., &c., qu. ed. Donn. Sm. (n. 12435 herb. nat. Cost.)

Anguria ovata Donn. Sm.—Tota glaberrima. Folia omnia simplicia integra membranacea concoloria ovata cuspidato-acuminata dimidio longiora quam latiora ad basin rotundam leviter retusa, nervis basilaribus 5, lateralibus utrinque 3. Flores masculini pauci subcapitati. Calyx lineari-cylindricus. Petala utrinque dense furfuracea. Antherae rectae lineares, appendice glabra.

Caulis gracilis striatus. Folia 8.5–9^{cm} longa viridia, venulis reticulatis diaphanis, petiolis 3–5^{cm} longis. Cirrhi tenues striati. Pedunculi masculini striati 12–15^{cm} longi apice brevissime racemosi et 8–12-flori, pedicellis 1–2^{mm} longis. Calyx basi rotundus apice haud constrictus 14^{mm} longus 3^{mm} latus, dentibus obtuse ovatis 1^{mm} longis. Petala suborbicularia 6^{mm} longa 4–5^{mm} lata exungiculata enervia lateritia. Antherae 10^{mm} longae 1.5^{mm} latae, appendice 0.5^{mm} longa. Flores feminini fructusque desunt.—*A. longipedunculatae* Cogn. proxima.

✓In dumetis ad Las Vueltas, Tucurrique, Costa Rica, alt. 635^m, Feb. 1899, *Tonduz*, n. 13006 herb. nat. Cost.

Gurania Tonduziana Donn. Sm. (§ F. 1. Cogn. in DC. Monogr. Phan. 3: 694.)—Folia circumscriptione cordiformia paulo longiora quam latiora 5-nervia profundissime 7-partita, segmentis 5 interioribus oblanceolato-linearibus, exteriori utroque oblongo et aurito. Pedunculi masculini foliis superati, floribus brevissime spicatis. Calycis pubescentis segmenta linearia tubo 2–3-plo longiora. Antherae oblongae, appendice minuta deltoidea.

Caulis robustus striatus cum petiolis cirrhis pedunculis pubescens. Folia 24^{cm} longa, pagina superiore scabriuscula, inferiore pallidiore pubescente conspicue reticulato-nervosa, margine subundulata remote minuteque spinuloso-denticulata, nervo basilari utroque exteriori imum sinum marginante, segmentis acuminatis, terminali 21^{cm} longo ultra medium 5^{cm} lato basi 13^{mm} lato ceteris interioribus paulo majore, utroque exteriori inequilaterali 6.5^{cm} longo 3^{cm} lato, sinibus inter segmenta rotundis a sinu basilari 2-3^{cm} distantibus, hoc sub-rectangulari 3^{cm} profundo 5^{cm} lato. Pedunculi 17^{cm} longi, spica 8^{mm} longa. Calycis tubus ovalis 1^{cm} longus 6^{mm} latus, segmenta parce pubescentia 22-25^{mm} longa basi 1^{mm} lata enervia miniata. Petala conniventia lineari-lanceolata 9-10^{mm} longa 2^{mm} lata enervia extus dense glandulari-papillosa intus furfuracea. Antherae 7^{mm} longae 2^{mm} latae tertia parte replicatae, connectivo loculis angustiore, appendice vix 0.5^{mm} longa. Flores feminini fructusque ignoti.—Ad *G. Makoyanam* Cogn. florum indole accedens foliis insigniter recedit.

✓In sylvis ad Shirores, Talamanca, Costa Rica, alt. 100^m, Feb. 1895, Tonduz, n. 9332 herb. nat. Cost.

Sciadophyllum systylum Donn. Sm.—Ferrugineo-pubescent. Foliola 7-9 elongato-oblonga longe acutissimeque caudato-acuminata basi obtusa subcoriacea praeter costam tandem glabrescentia, nervis patulis. Umbellae in racemum simplicem cylindricum dispositae. Styli in columnam quam bacca tertia parte brevior omnino coaliti, stigmatibus 5-6, seminibus abortu paucioribus.

Totum pube detergibili stellata interdum tomentulosa vestitum. Stipulae coriaceae lineares 5-7.5^{cm} longae. Petiolus teres 16-27^{cm} longus, petiolulis canaliculatis, foliolo intimo maximo 14-25^{cm} longo 4-7^{cm} lato, cauda 2.5-3.5^{cm} longa, petiolulo 4-7^{cm} longo, foliolis lateralibus cum petiolulis sensim decrescentibus, infimo utroque 6-14.5^{cm} longo, petiolulo 2-2.5^{cm} longo, nervis lateralibus utrinque 12-18 prope marginem arcuate conjunctis. Racemi 20-35^{cm} longi, ramis satis approximatis 1.5-4.5^{cm} longis, pedicellis circa 10 et 5-8^{mm} longis. Baccae ovali-globosae 3-4^{mm} longae 5-6-angulares, juniores pube stellata punctatae, stylis 2-2.5^{mm} longis, stigmatibus vix 0.5^{mm} longis radiantibus, seminibus 3^{mm} longis, 1-3 saepius abortivis. Flores ignoti.—Species stylis longis totis coalitis insignis.

✓In sylvis ad El Alto de La Palma, Costa Rica, alt. 1542^m, Aug. 1898, Tonduz, n. 7395 Pl. Guat. &c., qu. ed. Donn. Sm. (n. 12488 herb. nat. Cost.).

Oreopanax pycnocarpum Donn. Sm.—Stellato-pubescent. Folia simplicia integra crassa pube punctulata mox glabrescentia

nitidaque ovalia utrinque rotundata triplinervia longe petiolata. Capitula fructifera spiciformia oblongo-globosa pedicellis longiora inter maxima in racemos 3-nos abbreviatos pauciramos disposita, baccis compactis stylis liberis 6-7, seminibus abortu saepius paucioribus, albumine aequabili.

Folia 16-20^{cm} longa 8-11^{cm} lata, nervis subangulo angusto ascendentibus, basili utroque exteriori 8^{mm} a basi distante, lateralibus utrinque 3 ultra medium ortis, venis transversis inter marginem et nervum utrumque basilem subtus conspicuis circa 10, petiolis pubescentibus 10-12^{cm} longis. Racemi pubescentes 7-9^{cm} longi, ramis crassis 8-11^{mm} longis, inferioribus alternis, supremis 4-nis, capitulis 2.5-3.2^{cm} longis 1.8-2.2^{cm} latis, rhachi 1-1.5^{cm} longa, bracteolis cuspidato-ovatis ciliatis. Baccae subglobosae pressione mutua angulatae, nitidae in sicc. pallide flavescentes numerosissimae 8^{mm} longae 6^{mm} latae, stylis stellatim recurvatis 1.5^{mm} longis, seminibus oblongis 3-gonis 5^{mm} longis 2^{mm} crassis. Flores deficiunt.—Ad *O. capitatum* Decne. et Planch. foliis ad *O. macrocephalum* Seem. capitulis accedit.

✓In sylvis ad Copey, Prov. Cartago, Costa Rica, alt. 1800^m, Febr. 1898, Tonduz, n. 11933 herb. nat. Cost.

Chomelia microloba Donn. Sm.—Inermis. Folia oblongo-ovata aut-elliptica obtuse acuminata basi acuta aut obtusa coriacea praeter nervorum axillas subtus barbatas glaberrima. Pedunculi terminales bini gracillimi, cymis bifidis multifloris, floribus ebracteolatis. Calyx glaber, ore subintegro. Corollae extus pubescentis tubus infundibuliformis calyce triplo longior, lobis induplicato-valvatis.

Ramuli recentiores cum stipulis cuspidato-triangularibus 3-4^{mm} longis persistentibus et petiolis 4-6^{mm} longis pubescentes. Folia 5.5-10^{cm} longa 3-4.5^{cm} lata, juniora e basi rotunda magis ovata, nervis lateralibus utrinque 4-5. Pedunculi glabri 2.5-3.5^{cm} longi, cymis glabris 3.5^{cm} latis circa 19-25-floris, floribus sessilibus. Calyx cylindricus 3^{mm} longus 1.5^{mm} latus, denticulis vix 0.3^{mm} longis obtusis. Corollae intus glabrae tubus 8-10^{mm} longus, lobi obtuse ovati 3^{mm} longi. Antherae semiexsertae lineares 2^{mm} longae ad tertiam partem longitudinis affixae. Ovarium calycis duas partes aequans, stigmatibus 1^{mm} longis, ovulis linearibus 1^{mm} longis. Drupa in speciminibus suppetentibus deficit.—Ab omnibus congeneribus calyce subtruncato differt.

✓In sylvis litoralibus ad Santo Domingo de Golfo Dulce, Costa Rica, Febr. 1896, Tonduz, n. 7048 Pl. Guat., &c., qu. ed. Donn. Sm. (n. 9874 herb. nat. Cost.

Faramea trinervia K. Sch. et Donn. Sm.—Folia nitida obovato-oblonga vel oblonga contracto-acuminata auriculata subsessilia, nervo utroque basilari percurrente, lateralibus angulo subrecto a costa divergentibus. Cyma foliaceo-bibracteata trichotomo-decomposita, floribus ebracteolatis. Calycis limbus denticulatus discum aequans.

Glaberrima. Folia pergamenea diaphana laete viridia 20–25^{cm} longa medio 6–9.5^{cm} basi 1.5–3^{cm} lata, suprema lineari-oblonga 11^{cm} longa 3^{cm} lata, costa utrinque prominente, nervo a basi utrinque prodeunte conspicuo apicem attingente a margine 5–10^{mm} distante, nervis lateralibus primariis utrinque circa 14, nervum percurrentem attingentibus, petiolis 2–3^{mm} longis. Stipulae 6–8^{mm} longae in vaginam semiconnatae parte libera rotundatae aristatae. Pedunculi singuli ramulos terminantes 4–6.5^{cm} longi apice bracteis ante anthesin caducis instructi. Cyma 4.5–6.5^{cm} alta, ramis late patulis complanatis, iis infimis 4–5.5^{cm} longis, pedicellis accrescentibus 5–11^{mm} longis. Calycis limbus ovarium aequans usque ad medium acute denticulatus. Ovarium post anthesin pedicello paulo crassius cum disco aequilongo truncato adjecto 1.5^{mm} longum. Corolla et fructus desunt.—A ceteris speciebus haec nervatione insigniter differt.

✓In sylvis ad Boca Zhorquin, Talamanca, Costa Rica, Mart. 1894, *Tonduz*, n. 8571 herb. nat. Cost.; in sylvis Tsakianis, Talamanca, alt. 200^m, Apr. 1895, *Tonduz*, n. 9583 herb. nat. Cost.

FARAMEA TRINERVIA Suerrensii Donn. Sm.—Folia obovato-vel oblongo-elliptica in caudam gracilem contracta infra medium in petiolum angustata, suprema lanceolata.

Frutex 3–4^m altus, ramosus. Foliorum cauda 1.4–2^{cm} longa, petioli 1–1.5^{cm} longi. Bractee lanceolatae tenuissime elongatae 6^{cm} longae 12^{mm} latae. Florum nondum satis evolutorum pedicelli 2–5^{mm} longi, calycis limbus 1^{mm} altus, dentibus triangularibus, corolla intense cyanea in sicc. nigrescens 6^{mm} longa tubulosa usque ad mediam paene lobata, filamenta longiuscula prope basin corollae inserta, antheris 3^{mm} longis exsertis, ovarium obovatum cum disco conico adjecto 2^{mm} longum. Fructus cyaneus transversim depresso-ovalis 15^{mm} longus 11^{mm} crassus, semine conformi 11^{mm} longo 8^{mm} crasso subtus usque ad medium transversim bipartito, testa pallide scariosa.

✓In sylvis profundis ad fundum Suerre dictum, Llanuras de Santa Clara, Comarca de Limón, Costa Rica, alt. 300^m, Febr. 1896, *Donn. Sm.*, n. 6589, Pl. Guat., &c., qu. ed. Donn. Sm.

Parathesis glabra Donn. Sm.—Omnibus in partibus maculata et praeter corollam glabra. Folia oblongo-elliptica acuminata

in petiolum attenuata integerrima subdiaphana utrinque dense maculata, nervis crebris patulis. Paniculae axillares foliis breviores, pedunculo filiformi, pedicellis ad apicem ramorum primariorum subumbellatis. Calycis segmenta elongato-triangularia. Corollae segmenta linearia. Antherae filamentis bis longiores prope basin affixae per totam longitudinem dehiscentes.

Folia 8-14^{cm} longa 3.5-7^{cm} lata maculis punctata et striatula, nervis inter se 4-6^{mm} distantibus, petiolis canaliculatis 0.8-1.5^{cm} longis. Paniculae cum pedunculo 2.5-4^{cm} longo adjecto 5-7.5^{cm} longae, ramis solitariis 7-15^{mm} longis, pedicellis 3-6-fasiculatis 5-7^{mm} longis, bracteis bracteolisque lanceolato-linearibus parvis, alabastris lanceolato-conicis. Calycis segmenta 1^{mm} longa. Corollae tubus 1^{mm} altus, segmenta e basi 1^{mm} lata attenuata usque ad 7^{mm} longa staminibus bis longiora revoluta intus praesertim marginibus sordide pubescentia. Ovarium conicum calyce brevius parce maculatum, stylo 4.5^{mm} longo. Fructus desideratur.—*Ardisiam ramifloram* Oerst. habitu simulans.

✓In sylvis ad Copey, Prov. Cartago, Costa Rica, alt. 1800^m, Febr. 1898, *Tonduz*, n. 11714 herb. nat. Cost.

MACROSCEPIS CONGESTIFLORA Donn. Sm., BOT. GAZ. 25:149. 1898.—Sub hoc nomine eandem plantam atque eodem numero indicatam incaute descripsi, quam typicam *M. pleistanthae* l. c. 20:543. 1895, jam edideram.

Markea leucantha Donn. Sm.—Praeter filamenta omnibus in partibus glaberrima. Folia coriacea nitida obovato-oblonga apice rotundata a medio in petiolum attenuata. Flores apice ramorum annotinorum aggregati pauci. Calyx parvus teres coriaceus, lobis oblongo-ovatis brevissime cuspidatis. Corolla calyce 5-plo longior, tubo extra calycem sensim ampliato late infundibulari. Genitalia exserta.

Frutex epiphyticus 2-3^m longus verrucosus, ramulis hornotinis quadrangularibus sub apice ramorum plerumque ortis. Folia plerumque geminatim aut ternatim approximatis 7-15^{cm} longa 2.5-5.5^{cm} lata, recentiora magis oblanceolata et acutiuscula, nervis lateralibus utrinque 5-8 subtus tantum conspicuis, petiolis crassis 4-12^{mm} longis. Pedicelli brevissime racemosi in speciminibus suppetentibus 3-8 circa 10^{mm} longi, bracteis subulatis 3^{mm} longis deciduis. Calyx intus nervosus 11-13^{mm} longus usque ad medium fissus. Corolla alba (Cooper in schedula) 5-nervia reticulata 5.3-6.3^{cm} longa, tubo

3.8–4.6^{cm} longo quam faucium latitudo bis longiore, lobis semiorbicularibus. Stamina ad 8^{mm} supra basin corollae inserta 4–4.8^{cm} longa, filamentis ad basin versus incano-barbatis, antheris paulo infra mediam affixis 6^{mm} longis 2.5^{mm} latis. Ovarium ovoideum 4^{mm} altum atque latum, stylo 4.3–5^{mm} longo, stigmati obconoidei lamellis semiorbicularibus. Bacca desideratur.—Species calyce parvo insignis.

✓ Estrella, Prov. Cartago, Costa Rica, alt. 1800^m, Jun. 1887, *Cooper*, n. 5887 Pl. Guat. &c., qu. ed. Donn. Sm.; Prope Juan Viñas, Prov. Cartago, alt. 1140^m, Maj. 1890, *Tonduz*, n. 1845 herb. nat. Cost.

Alloplectus macranthus Donn. Sm.—Omnibus in partibus strigilloso-pubescent. Folia maxima oblongo- vel obovato-elliptica apice acuminata in petiolum attenuata et decurrentia inaequilatera subintegra. Pedicelli racemosi bracteis breviores calycem subaequantes, floribus maximis numerosissimis coarctatis. Calycis segmenta breviter connata subaequalia oblonga obtusa integra. Corolla calyce bis longior erecta late infundibularis, limbo obliquo, lobis inaequalibus rotundatis denticulatis.

Caulis pollicis crassitudine in arborum truncis scandens. Folia 23–45^{cm} longa 10–19^{cm} lata, nervis lateralibus utrinque 7–8, petiolis crassis rugosis canaliculatis 4–7^{cm} longis. Racemi aetate proveciore recurvi 2–4^{cm} longi. Bractee herbaceae ovaes aut oblongo-ellipticae 3–4, 5^{cm} longae. Pedicelli 2.5–3^{cm} longi, demum subsecundi. Calyx herbaceus, segmentis circa 2.5^{cm} longis 8–10^{mm} latis. Corolla puberula ex schedula Tuerckheimiana extus candida intus maculato-aurantiaca 6^{cm} longa, tubo 4.2^{cm} longo a basi saccata 6^{mm} lata in fauces 2^{cm} latas sensim ampliato, lobis posticis 1^{cm} anticis 7^{mm} longis. Filamenta in vaginam brevem dilatata, antheris liberis oblongis 6^{mm} longis. Disci glandula solitaria. Ovarium dense pubescens oblongo-ovatum 6^{mm} longum, stylo 1.6^{cm} longo, stigmate concavo. Fructus calyce aucto cinctus ovalis 1.7^{cm} longus 1^{cm} crassus, placentis rubris, seminibus oblongo-ellipticis 1^{mm} longis.—Ab *A. circinnato* Mart. foliis et inflorescentia proximo recedit praecipue corolla infundibulari altero tanto longiore.

✓ In fundo Cubilquitz vocato, Depart. Alta Verapaz, Guatemala, alt. 350^m, Jul. 1900, *H. von Tuerckheim*, n. 7642 Pl. Guat. &c., qu. ed. Donn. Sm.—Huic probabiliter referenda sunt specimina a *Tonduz* in Costa Rica lecta et sub n. 13042 distributa. Haec pedicellos densissime aggregatos brevissime racemosos bracteas calycesque erubescences praebent, corollis tamen carent.

Columnea sulfurea Donn. Sm. (§ EUCOLUMNEA Benth. et Hook.)—Pilis aspersa. Folia disparia subtus vinosa elongato-elliptica utrinque acuminata inaequilatera basi valde obliqua.

Pedunculi solitarii aut bini petiolo longiores calyce breviores. Calycis segmenta vinosa attenuato-lineariter tubi corollini duas partes aequantia. Corolla flava infundibulari-tubulosa leviter arcuata, limbo postico quam tubus brevior quam anticus porrectus altero tanto paene longiore, galea truncata. Ovarium dense pilosum.

Epiphytica, caule crasso parum ramoso erubescente, internodiis 1.5–3.5^{cm} longis, superioribus et petiolis pedunculis calycibus densius rubro-pilosis. Folia discoloria utrinque sparsim bulboso-pilosa ad basin latere altero obtusa altero valde exciso acuta, uniuscujusque paris folio florali 7.5–11.5^{cm} longo 2.5–4^{cm} lato, minore conformi 3–4^{cm} longo, petiolis 3–7^{mm} longis. Pedunculi plerumque singuli 9–15^{mm} longi. Calycis segmenta sublibera 2.5^{cm} longa. Corolla ex sched. Tuerckheimiana sulfurea sparsim pilosa 6.8^{cm} longa basi 3^{mm} faucibus 7^{mm} lata, tubo basi gibbo, limbo postico 3^{cm} longo, galea 1.5^{cm} longa atque lata integra, lobis lateralibus angulo recto subtriangularibus 1^{cm} longis obtusis, limbo antico lineari-oblongo 1.5^{cm} longo. Stamina 5.8^{cm} longa, antheris oblongis 3^{mm} longis, staminodio 4^{mm} longo. Disci glandula solitaria crassa bidentata. Ovarium ovoideum 2^{mm} altum, stylo rubro 6.5^{cm} longo ad apicem versus pubescente, stigmate bilamellato. Fructus ignotus.

✓Cubilquitz, Depart. Alta Verapaz, Guatemala, alt. 350^m, Febr. 1900, *H. von Tuerckheim*, n. 7646 Pl. Guat. &c., qu. ed. Donn. Sm.

COLUMNEA MICROCALYX macrophylla Donn. Sm.—Folia membranacea pubescentia oblongo-elliptica vix acuminata basi cordata inaequilatera, uniusque paris majus usque ad 5^{cm} longum et 2^{cm} latum, alterum triente minus. Calyx virescens corollae 6.7^{cm} longae quintam partem aequans.

In sylvis prope Las Vueltas, Tucurrique, Costa Rica, alt. 650–700^m, Dec. 1898, *Tonduz*, n. 12932 herb. nat. Cost.

Napeanthus repens Donn. Sm.—Herba repens acaulis strigilloso-pubescent. Folia opposita subrosulata petiolata tenuimembranacea oblongo-elliptica utrinque acuminata dentata. Pedicelli fasciculati filiformes. Calycis segmenta sublibera 3-nervia. Corolla rotata, tubo brevissimo, faucibus explanatis, limbo alte fisso subbilabiato. Stamina 4, loculis ovoideis divergentibus distinctis. Ovarium corollae tubum aequans. Capsula membranacea sphaerica.

Folia 4-9^{cm} longa 2-3.5^{cm} lata plerumque inaequilatera supra densius pubescentia subtus pallidiora et purpureo-reticulata, dentibus magnis crebrisque. Pedicelli complures 2-3.5^{cm} longi inferne marginati. Calycis segmenta lineari-lanceolata 2^{mm} longa dense pubescentia exreticulata. Corolla alba parce pubescens diametro circa 1^{cm}, faucibus 3^{mm} latis, segmentis parum aequalibus ovalibus 3-4^{mm} longis. Stamina glabra, filamentis 1^{mm} longis inferne marginatis, antheris reniformibus supra medium affixis reversis 0.5^{mm} latis ante anthesin leviter cohaerentibus, loculis poro laterali subrotundo dehiscentibus. Ovarium pubescens, stylo 3.5^{mm} longo, stigmate parum bifido. Capsula diametro 1.5^{mm} calyce immutato inclusa.

✓In rupibus praeruptis humidissimis, Cubilquitz, Depart. Alta Verapaz, Guatemala, alt. 350^m, Jun. 1900, von *Tuerckheim*, n. 7647 Pl. Guat. &c., qu. ed. Donn. Sm.

Amphilophium oxylophium Donn. Sm.—Pilis singulis dense molliterque ochraceo-tomentosum. Stipulae foliaceae. Folia conjugata cirrho carentia, foliolis breviter petiolulatis ovato-cordiformibus contracto-acuminatis infra indumentum supra tuberculatis subtus lepidotis. Calycis limbus tubum aequans lobos 2 interiores plus quam duplo superans, lobis exterioribus triangularibus induplicatis reflexis. Corolla glabra ultra mediam labiata, labio inferiore fisso. Ovarium lepidotum glabrum.

Caulis cum petiolis thyrsoque robustus et floccoso-tomentosus. Stipulae 10-12^{mm} longae deciduae. Petioli 2-2.5^{cm} petioluli 8-12^{mm} metientes. Foliola 7-12^{cm} longa 5-7.5^{cm} lata supra pilis simplicibus adpressis vestita subtus pilis ramosis densius tomentosa et pallidiora. Thyrsus contracto-cylindricus in speciminibus suppetentibus vix evolutus 1^{dm} longus, bracteis bracteolisque lineari-lanceolatis 1-1.5^{cm} longis. Calycis totius lepidoti tubus subglobosus 8^{mm} longus dense pilosus, limbus utrinque parce pilosus, lobis 5 exterioribus 5-6^{mm} longis, interioribus lati-rotundatis 3^{mm} longis extus parce pilosis. Corolla 2.5^{cm} longa ad apicem versus minutissime lepidota intus prope insertionem staminum linea lepidota incrassata, tubo 1^{cm} longo, labii inferioris laciniis 13^{mm} longis. Stamina majora 13^{mm} minora 10^{mm} metientia, thecis 2.5^{mm} longis, staminodio 3^{mm} longo. Discus pulvinaris cum stylo 1.5^{cm} longo glaber, stigmatibus semiorbicularibus. Capsula ignota.

✓Tucurrique, Costa Rica, alt. 630^m, Jan. 1899, *Tonduz*, n. 13045 herb. nat. Cost.

Lophostachys Guatemalensis Donn. Sm.—Folia nascentia incano-pubescentia aetate proveciore praeter petiolum nervosque

glabrescentia disparia lanceolato-elliptica longe falcato-acuminata triente inferiore in petiolum arcuatim attenuata subtus pallidiora. Spicae terminales subsessiles solitariae, bracteis lanceolato-linearibus 5-nerviis, bracteolis spathulato-linearibus abrupte cuspidatis 2-nerviis. Calycis segmenta exteriora aequalia spathulato-oblonga cuspidato-acuminata, postico basi 7-nervio medio 5-nervio, antici usque ad medium fissi laciniis 3-nerviis. Stamina omnia perfecta.

Fruticulus decumbens dichotomo-ramosus, ramulis quadrangularibus. Folia 5–8^{cm} longa 1.5–3.5^{cm} lata supra saepe minutissime lineolata subtus ad costam nervosque pubescentia, petiolis pubescentibus 1–1.5^{cm} longis, axillis saepius folia duo minuta producentibus. Spicae foliis reductis suffultae 3–4^{cm} longae, bracteis 9–10^{mm} longis 2.5–3^{mm} latis triente superiore falcato-acuminatis et ciliatis ad nervos pubescentibus, bracteolis 9^{mm} longis inaequalateralibus ciliatis, altera angustiore. Calyx 1.5^{cm} longus sicut bracteolae erubescens et pulchre reticulatus ciliatus ad basin versus utrinque incano-pubescentibus ceterum minute puberulus, segmentis lateralibus subulatis 8^{mm} longis, postico 5^{mm} lato. Corolla purpurea (ut videtur), pubescens 3.3^{cm} longa, labio postico truncato-ovato 8–9^{mm} longo bidentato, antici 10–11^{mm} longi segmentis ovalibus 6^{mm} longis. Stamina medio tubo affixa, antica 17^{mm} longa, posticorum 13^{mm} longorum antheris unilocularibus polleniferis. Discus 1^{mm} altus, ovario oblongo-ovoideo 4^{mm} longo, stylo capillari 2.7^{cm} longo, ovulis ovalibus 1^m longis. Capsula non adest.—Ceteris speciebus adhuc descriptis, omnibus Brasiliensibus aut Peruvianis, haec bracteis bracteolis calycibus praecipue discrepat.

✓Casillas, Depart. Santa Rosa, Guatemala, alt. 1300^m, Jan. 1893, *Heyde et Lux*, n. 4382 Pl. Guat. &c., qu. ed. Donn. Sm.

Hernandia didymantha Donn. Sm.—Ramuli cum foliis petiolisque glaberrimi. Folia oblongo-ovata a medio linea arcuata sursum angustata basi obtusa aut rotundata penninervia. Paniculae folia superantes praeter involucella totae incanae, ramis secundariis bifloris, bracteis 4 oblongis. Flos masculinus solitarius 3-merus, pedicello filiformi. Flos femininus 4-merus, involucello truncato pyramidali subclauso, fructifero sphaerico drupam subaequimagnam arcte includente, semine globoso.

Arbor 15^m alta, trunco excelso, ramis inferioribus reflexis, superioribus erecto-patentibus, floribus porraceis (ex schedula et icone photographica Pit-terianis). Folia 12–18^{cm} longa 4.5–7^{cm} lata tenuiter coriacea, nervis lateralibus

utrinque 7-8, petiolis glabris canaliculatis 3-6^{cm} longis. Paniculae circa 5 terminales et ex axillis foliorum superiorum decrescentium prodeuntes cum pedunculo 9-11^{cm} longo adjecto 19-23^{cm} longae corymbiformes densiflorae, ramis secundariis arcuatim adscendentibus, inferioribus 2-3^{cm} longis. Bractee jam ante anthesin reflexae 8^{mm} longae 3.5^{mm} latae apice rotundatae. Floris masculini pedicellus filiformis 7^{mm} longus, altero anantho brevi rarissime exstante, segmenta 6 oblongo-elliptica 5^{mm} longa obtusa, glandulae 6 liberae subsessiles, antherae oblongae 1.5^{mm} longae filamenta aequantes. Floris feminini pedicellus 1^{mm} longus, involucellum coriaceum parce pubescens siccitate nigrescens 3^{mm} altum atque latum, ore integro 1^{mm} lato, segmenta 8 uti glandulae 4 masculinis similia, stylus sursum incrassatus et quadrangularis 4^{mm} longus, stigma obliquum subintegrum nudum. Involucellum fructiferum crasse coriaceum 2.2^{cm}-diametrale, drupa 1.9^{cm}-diametralis ecostata (ut videtur).

✓*H. Guianensi* Aubl. proxima recedit praesertim foliis penninerviis, flore masculino singulo graciliter pedicellato, involucello jam sub anthesi paene clauso, drupa minore.

Ad litora Atlantica prope Punta Mona, Costa Rica, Sept. 1898, *Pittier*, n. 12682 herb. nat. Cost.

***Brosimum heteroclitum* Donn. Sm.**—Scandens. Folia membranacea glabrescentia oblongo-elliptica cuspidato-acuminata basi obtusa aut acutiuscula crenulato-serrulata, stipulis bracteisque a basi lata filiformibus. Receptacula in axillis duabus supremis approximatis solitaria sessilia maxima, masculinorum loculis 1-3, ovulis abortivis in quoque loculo pluribus.

Suffrutex in arborum truncis scandens et radicans, ramis virgatis 30-40^{cm} longis glabris. Folia nascentia pubescentia, vetustiora supra punctis minutis albidis scabriuscula costa nervisque pubescentia 10-16^{cm} longa 4.5-6.5^{cm} lata, nervis lateralibus utrinque 6-8, venis transversis subparallelis, petiolis 1-3^{cm} longis sicut stipulae bracteeque 6^{mm} longae pubescentibus. Receptacula masculina globosa 1-1.3^{cm}-diametralia demum ovalia et usque ad 2^{cm} longa crasse corticata ore bracteolis crassis ovatis munita, ovulis abortivis lateraliter affixis. Cetera desunt. Species habitu scandente et ovulis rudimentariis compluribus valde anomala. Receptacula vetustiora staminibus derasis tantum suppetunt.

✓Jiménez, Llanuras de Santa Clara, Costa Rica, alt. 250^m, Mart. 1896, *Donn. Sm.*, n. 5117, Pl. Guat., &c., qu. ed. *Donn. Sm.*

***Pilea ptericlada* Donn. Sm.**—Dioica. Glabra. Folia oblongo-elliptica utrinque acuminata in petiolum brevem cuneato-attenuata

supra trientem inferiorem grosse crenato-serrata, nervis basilari-bus trientem superiorem attingentibus et costa subtus explanatis fuscis, stipulis quam petiolis paulo brevioribus. Pedunculi femi-nini foliis breviores et cymarum axes alati.

Herbacea. Caulis e basi lignosa radicante assurgens in exemplis obviis 6–15^{cm} altus, nodis approximatis. Cujusve paris folia aequalia aequilatera triplinervia 5–11^{cm} longa 3–5^{cm} lata summa apice obtusiuscula supra cysto-lithis fusiformibus et punctiformibus farcta subtus plerumque nuda, foliis inferioribus minoribus, serraturis obtusis, costa nervisque supra immersis, stipulis orbiculari-ovatis 5–8^{mm} longis binerviis, petiolis 6–10^{mm} longis. Pedun-culi 2–6^{cm} longi 2–3^{mm} lati, cymis pyramidalis 2–3^{cm} altis 2.5–3.5^{cm} latis, ramis ramulisque patulis circa 1^{mm} latis sicut pedunculi cystolithis obsitis. Peri-anthium sessile fructifer bracteolam cystolithis lineatam subaequans, seg-mentis parum inaequilongis, achenia ventricoso-ovata 2^{mm} longa perianthium dimidio superante rubro-punctulata et marginata. Planta masculina ignota. Secundum methodum Weddellianam juxta *P. elegantem* Wedd. locari debetur.

✓ In sylvis udis Atirrensibus, Prov. Cartago, Costa Rica, alt. 600^m, Apr. 1896, *Donn. Sm.* n. 6779 Pl. Guat., &c., qu. ed. *Donn. Sm.*; Suerre, Llanuras de Santa Clara, Costa Rica, alt. 300^m, Apr. 1896, *Donn. Sm.* n. 6780 Pl. Guat., etc., qu. ed. *Donn. Sm.*—Eadem planta, ut videtur, sub nn. 172 et 199 *Endres* in herb. Kew. exstat.

Costus sanguineus Donn. Sm.—Pallide ferrugineo-villosus. Folia discoloria supra bulboso-pilosa oblanceolato-oblonga acut-issime acuminata basi minute rotundata subsessilia. Strobilus lanceolato-ovoideus, bracteis pilosis oblongo-ovatis superne infra apicem carinatis, infimis apice foliaceis. Calyx prima tertia parte acute lobatus. Corolla sanguinea, labello pubescente oblongo apice angustata truncata 5-lobulato, ceteris segmentis anguste lanceolato-oblongis, connectivo triangulari labellum paulo superante. Ovarium pilosum.

Ochreae laciniis scariosis usque ad 2^{cm} longis marginatae saepius reticu-lato-striatae cum vagina extus villosae et intus glanduloso-punctulatae. Folia subtus sericea et ad costam longe villosa 14–22^{cm} longa supra medium 4.5–6.5^{cm} lata basi 8–10^{mm} lata, nervis omnibus a basi prodeuntibus. Strobilus 7–10^{cm} longus circa 3^{cm} crassus, bracteis coriaceis sanguineis circa 4^{cm} longis 20–23^{mm} latis, bracteola 1 pubescente lineari-oblonga 18^{mm} longa 6^{mm} lata acuminata, floribus sub quaque bractea singulis. Calyx campanulatus 8–9^{mm} altus pilosus striatus. Corolla purpureo-coccinea (von Tuerckheim in sched.) 5.5–6^{cm} longa, labello 3.3^{cm} longo 1.5^{cm} lato a triente superiore deorsum paulo

angustato, lobulis oblongis 3^{mm} longis rotundatis, ceteris segmentis 26–28^{mm} longis 7–9^{mm} latis, filamento 9–10^{mm} lato, connectivo 7^{mm} longo in caudiculam marginibus revolutam producto, anthera 8^{mm} longa, loculis 1^{mm} inter se distantibus. Ovarium breviter oblongum 5^{mm} longum, stigmate semilunari 3^{mm} lato ciliolato, appendice dorsali ovali apice retusa. Capsula ignota.—*C. spicato* Sw. proximus differt praecipue indumento et florum indole atque colore.

✓Cubilquitz, Depart. Alta Verapaz, Guatemala, alt. 350^m, Maj. 1900, von Tuerckheim, n. 7686 Pl. Guat. &c., qu. ed. Donn. Sm.

ISCHNOSIPHON MORLAE (Eggers, Bot. Centralbl. 53: 307. pl. 2) *leiostachya* Donn. Sm.—Spicae glabrae, bracteis magis elongatis.—Ceteroquin exempla Centrali-Americana cum specimine typico Ecuadoriensi in herb. Kew. asservato prorsus congruunt.

San Pedro Sula, Depart. Santa Barbara, Honduras, alt. 300^m, Sept. 1888, C. Thieme, n. 5519 Pl. Guat. &c., qu. ed. Donn. Sm.; Las Vueltas, Tucurrique, Prov. Cartago, Costa Rica, alt., 635^m, Dec. 1898, Tonduz, n. 12884^{LT} herb. nat. Cost.

Calathea dasycarpa Donn. Sm. (§ EUCALATHEA Koern.)—Folia glabra oblonga 3–4-plo longiora quam latiora in cuspidem gracilem acuminata basi rotundata in articulum cuneato-producta, folio inflorescentiam suffulciente caulinis simili longe petiolato. Pedunculus petiolo brevior bifidus. Spicae pro ratione parvae oblongae interdum basi furcatae, bracteis distichis vix ac ne vix imbricatis dimidiato-ovatis cymbiformibus coriaceis ad margines barbatis, floribus paucis binis. Corollae tubus sepalis 3-plo longior intus villosissimus. Ovarium pilosum. Fructus monospermus.

Folia 60–80^{cm} longa prope medium 18–19^{cm} lata ad costam subtus pubescentia, cuspidem lineari 1.5–2.5^{cm} longa, petiolis cum articulo glabro 5–6^{cm} longa adjecto 43^{cm} longis pilosiusculis. Pedunculus 21^{cm} longus basi bractea 10^{cm} longa apice bractea 3.5^{cm} longa suffultus, ramis 3–5^{cm} longis. Spicae 6–9^{cm} longae, rachis internodiis inferioribus 10–18^{mm} longis, bracteis 10–12 demum late patulis circa 2^{cm} longis 9^{mm} latis, bracteolis 2 late oblongis 10–14^{mm} longis, exteriore bicarinata et dentibus rotundatis 3-lobulata, interiore minore unicostata integra, floribus plerumque 4 minute pedicellatis. Sepala lanceolata 7–9^{mm} longa. Corollae pallide luteae (Pittier in sched.) tubus 28^{mm} longus intus valde pluri-costatus. Ovarium obovatum 3^{mm} longum dense longeque adpresso-pilosum, ovulo abortu unico triquetro. Fructus ovalis 10^{mm} longus 5^{mm} latus pilosus, pericarpio membranaceo nervoso, semine

atro-purpureo oblongo 4.5^{mm} longo corrugato. Corolla cum androecio mar-
cida tantum suppetit.

✓In sylvis ad oras Rio Hondo prope Madre de Dios, Comarca de Limón,
Costa Rica, alt. 200^m, Nov. 1896, *Pittier*, n. 10350 herb. nat. Cost.; Agua
Buena, Cañas Gordas, Comarca de Limón, Costa Rica, alt. 1100^m, Feb. 1897,
Pittier, n. 11136 herb. nat. Cost.

Calathea lasiostachya Donn. Sm. (§ *EUCALATHEA* Koern.)—
Folia glabra elongato-ovata apice acuminata inferne rotundata
ima basi cuneata, folio inflorescentiam suffulciente conformi
dimidio minore petiolis usque ad articulum vaginatis bis longiore.
Pedunculi 3-ni petiolum subaequantes. Spicae elongato-oblongae
sordide villosae, bracteis stricte distichis late patentibus con-
duplicatis membranaceis. Ovarium glabrum. Fructus dis-
permus.

Caulis robustus elatus. Articuli cum vaginis pedunculisque pilosiusculi.
Folia 86^{cm} longa 23^{cm} lata a triente inferiore sursum angustata, articulis 9^{cm}
longis, petiolis longissimis, vaginis scabriusculis. Folium sub inflorescentia
40^{cm} longum 15^{cm} latum, petiolo cum articulo 3^{cm} longo adjecto 21^{cm} longo.
Pedunculi 15–22^{cm} longi ad apicem versus villosi. Spicae 11.5–17^{cm} longae
5.5–6^{cm} latae, lateribus subparallelis. Bractee 22–32 sublaxe imbricatae
dimidiato-ellipticae subfalcatae 3.5^{cm} longae 1.5^{cm} latae intus sericeae, omnes
conformes, bracteolis lineari lanceolatis et linearibus circa 2^{cm} longis. Ovarium
nitido-atrum oblongum 6^{mm} longum 4^{mm} latum 3-loculare abortu 2-ovulatum.
Fructus laevis pallidus ellipticus 12^{mm} longus 6^{mm} crassus, pericarpio per-
gameneo intus valde reticulato, valvis 3 inaequilatis, minoribus latere septatis,
seminibus atris 8^{mm} longis arillosis. Perianthium deficit.

✓In sylvis ad oras Rio Hondo prope Madre de Dios, Costa Rica, alt. 200^m,
Nov. 1896, *Pittier*, n. 10344 herb. nat. Cost.

Calathea Verapax Donn. Sm. (§ *MONOSTICHE* Koern.)—Glabra.
Acaulis. Folia inaequilatera elliptica vel ovato-elliptica acumi-
nata ima basi in articulum brevem producta petiolis subaequi-
longa. Scapus nudus petiolum superans usque ad medium
bractea radicali inclusus basi petiolo et bracteis cinctus. Spica
obovato-elliptica, bracteis membranaceis coloratis numerosis-
simis lanceolatis filiformi-attenuatis subaequilongis. Corollae
tubus sepalis linearibus dimidio longior, lobi lanceolati.

Rhizoma bracteeas 7–20^{cm} longas apice denticulata petiolos 2 scapumque
involventes emittens, petiolo altero toto fere vaginato alterum nudum



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