

cium umbellatum, in a very reduced state and generally with only a single flower to each stem. An account of the botany of Connamara having been published by my friend Mr. Babington in vol. ii. of the *Mag. Nat. Hist.*, it will be unnecessary to add anything further as to this district. On the limestone rocks at Kilcormac near Galway, I collected *Grammitis ceterach*, *Melissa Calamintha*, *Asperula cynanchica*, *Euonymus europæus*, *Saxifraga tridactylites*, &c.; also, which may appear somewhat remarkable, on level ground near the sea, *Juniperus nana* in great abundance and luxuriance.

I cannot close this brief notice without expressing my obligations to my friend Mr. Babington for his assistance in the determination of many of the plants here mentioned.

It is hoped that these results of a very hurried visit to some little frequented parts of Ireland, may tempt some British naturalists to bestow a more careful examination on the hitherto little investigated districts of the west, where there can be no doubt that much would be found to repay their exertions.

IV.—*Some Account of the Genus Langsdorffia.* By G. W. ARNOTT, Esq., LL.D.

LANGSDORFFIA Mart.

Receptacula solitaria, stipites simplices terminantia, unisexualia. *Flores* MASculi inter paleas clavatas basi complanata in favi modum nexas sessiles. *Perigonium* infundibuliforme, limbo 3—5-fido, laciniis æstivatione induplicato-valvatis. *Stamina* 3—5, monadelphæ, perigonii laciniis opposita; columna solida, tubo perigonii adnata, parte libera anthesis brevior: antheræ connatæ, extrorsæ, biloculares; loculi æquales, juxta totam longitudinem dehiscentes. *Ovarii* rudimentum nullum. *Flores* FEMINEI (imperfecti?), confertissimi, pedicellati. *Stylus* filiformis simplex. *Ovarium* stipitatum in stylum gracilem attenuatum. *Herbæ* carnosæ, stipites e rhizomate hypogæo crassiusculo assurgentes, simplices, squamis obsessi, monocephali. *Capitula* unisexualia, alia ex eodem rhizomate mascula, alia feminea.

1. *L. janeirensis*; rhizomate repente subsimplici, stipitis squamis arete imbricatis lanceolatis villosio-fimbriatis, perigonio masc. trifido laciniis demum patentibus, floribus fem. (glandulam nullam ambientibus?) infra stylum bulboso-granulosus.—*L. janeirensis*, L. C. Richard, in *Mem. du Mus. d'Hist. Nat.* viii. p. 412. t. 19.—*L. hypogæa*, Mart. *Journ. von Brasil*, ii. p. 179; *Nov. gen. et sp.* iii. p. 181. t. 299.

Hab. in sylvis umbrosis circa Rio Janeiro.

As no notice is taken of the glands which in the next are

found mixed with the female flowers, I presume that they do not exist, but have not myself been so fortunate as to examine specimens.

2. *L. indica*; rhizomate cæspitoso ramoso, stipitis squamis patulis ellipticis margine glabris, perigonio masc. 4—5-fido laciniis demum reflexis, floribus fem. circa glandulam pyriformem stipitatum insertis lævibus.—*L. indica*, *Wight et Arn. ined.*; *Hook. Ic. Pl. t.* 205, 206.—*Balanophora indica*, *Wall. Cat. n.* 7247.—*B. elongata*, *Blume en pl. Jav. i.* p. 87?

Hab. In Peninsula Indiæ orientalis prope Courtallum et Cunnawady, atque in monte Newere-Ellia in insula Ceylano, *Wight*.

Rhizoma carnosum, amorphum, ramosum, ramis brevibus crassis subpræmorsis. Caules seu stipites cæspitosi, erecti, crassi, 4—6-pollices alti, monocephali, e basi usque ad capitulum squamis patulis tecti, alii ejusdem cæspitis masculi-flori, alii femini-flori. Foliorum loco squamæ obovales vel ellipticæ, obtusæ, versus basin angustatæ, summæ consimiles, omnes flavido-virentes, carnosæ, siccatione rigidulo-membranacæ, glaberrimæ, minime ciliolatæ, persistentes.—Capitulum masculinum sessile, ovato-globosum vel cylindraceo-ovale, obtusissimum, nunc squamis stipitis summis involucreatum, nunc omnino emersum. Flores numerosi, majusculi, circa axin dense spiratim dispositi. Axis seu receptaculum crassi stipitis, subcylindraceum, apice quandoque paullo crassius, paleis carnosis clavatis apice truncatis basi membranaceis ac in favi modum connexis obsitum. Perigonium intra singulos alveolos solitarium, sessile, infundibuliforme, paleis subtriplo longius: tubus cylindraceus semipollicem fere longus, andrœcio omnino farctus, pedicellum cylindricum crassiusculum referens: limbus sæpius quadrifidus, haud raro tamen quinquefidus; laciniae æquales, duas tresve lineas longæ, obovales, obtusæ, æstivatione induplicato-valvatæ, dein patentissimæ, demum reflexæ. Stamina monodelpha: columna filamentorum solida tubo perigonii cohærens, extra tubum breviter exserta: antheræ 4—5, laciniis perigonii oppositæ, circa columnæ apicem solidum connatæ, singulæ, cordatæ, biloculares, loculis æqualibus intus septulo longitudinali secundario biloculatis, per totam longitudinem extrorsum dehiscentes, septulis post pollinis emissionem albo-membranaceis patulis cristas tenues 16 vel 20 longitudinales simulantibus. Pollen subsphæricum, compressiusculum, angulis tribus poriformibus.—Capitulum femineum sessile, ovoideum, squamis stipitis summis involucreatum. Flores innumeri, minutissimi, totam axeos seu receptaculi ovoidei superficiem densissime tegentes, pedicellati, læves, fasciculatim dispositi: fasciculi a plurimis floribus circa glandulam insertis compositi: glandula obpyriformis, fusco-purpurea, semipellucida, obscure cellulosa, stipitata; stipes basi in-crassata flores sustinens, supra basin gracilis. Ovarium ovoideum vel subglobosum, sæpe inæquilaterum, atro-fuscum, basi in pedicellum apice in stylum attenuatum, ad styli basin lineola transversali (limbum perigonii cohærentis truncatum verosimiliter indicante) obscurissime notatum, intus ut videtur solidum homogeneous ac inovulatum, ideoque forsan in nostris abor-

tivum. Stylus filiformis, lævis, apice crassior ac truncatus, structura sub-cellulari, ex apice ovarii attenuato tarde deciduus, ovario colore pallidior : stylorum apices glandulam supra descriptam vix superantes.

Richard, in his account of the genus, considers the female flowers hitherto known to be imperfect : “ nescio quid imperfecti in omnibus trium capitulorum a me dissectorum floribus femineis deprehendens, ad suspicandum alia existere capitula perfectioribus onusta floribus moveor.” Most other botanists adopt the same view. I have never in the Indian species been able to find so perfect a perianth as Richard found in that from Brazil; and although the reputed ovaria were much more swollen than those which Richard saw, I cannot find the smallest trace of an ovule. I should therefore have thought it probable that those female capitula which arise from the same rhizoma as the male, were always imperfect, and that the fertile ones were to be found on a different plant, perhaps accompanied by imperfect males ; but Dr. Wight has observed the *L. indica* in different places and at different times, and he seems never to have detected any other than the form above described. Blume, if indeed his *Balanophora elongata* be the same as that from Dr. Wight, while he inserts it in *Balanophora*, makes no exception as to the imperfection of any of the female flowers : but that plant is referred doubtfully by Endlicher to *Cynopsole*, a new genus, which is said to be diœcious (the *male only* being known), but which may with equal probability be held to be monœcious, and would then only differ from *Langsdorffia indica* by “ flores masculi singuli bractea canaliculata excepta,” instead of these bractea or paleæ being clavate upwards while their membranaceous bases intersect each other and form cells. Blume also says of his plant that it is diœcious, but from the account given in the generic character of the structure of the monœcious species, it is obvious that by *diœcious* he only alludes to the capitula being unisexual.

Further observations may thus prove the three to be one and the same species. Whether we suppose that Blume saw perfect females, and that he found the structure as in the genus *Balanophora*, where the ovaria are “ one-ovuled and attenuated upwards into a setaceous style,” or that the style





Walker-Arnott, George Arnott. 1838. "IV.—Some account of the genus *Langsdorffia*." *Annals of natural history* 2, 36–39.

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