

1220 m., 17 October, 1900, *C. G. Pringle*, no. 9253 (type, in hb. Gray). This species is clearly separated from the preceding by its much narrower leaves and merely puberulent more subulate involucreal scales. It belongs to a group of several obviously diverse yet nearly related plants which have been provisionally referred to the merely inferential *P. turbinata* La Llav. & Lex. The latter, however, described as having ovate leaves and short-peduncled heads, must certainly have been a plant quite different from either here characterized.

III. NEW PLANTS FROM GUATEMALA AND MEXICO, COLLECTED CHIEFLY BY C. C. DEAM.

BY B. L. ROBINSON AND H. H. BARTLETT.

Polypodium (*Goniophlebium*) *hispidulum* Bartlett, n. sp., rhizomate crassitudine 3–5 mm. simplici vel furcato ad arborum truncos repenti longitudine usque ad 12 cm., aetate aperto foveolato-rugoso juventute paleis tecto, paleis deltoideo-linearibus secus lineam medianam ferrugineis margine straminellis; frondibus inter se propinquis 6–12 cm. longis 4–7.5 cm. latis; stipitibus gracilibus 0.5–3.5 cm. longis exigue pilosis supra canaliculatis subtus semiteretibus; laminis fere usque ad costam pinnatipartitis utrinque hispidulis atroviridibus circumscriptione valde variabilibus ovatis semiovatis vel aequilater-aliter triangulis prout segmenta duo inferiora reducta aut haud reducta sunt; segmentis integerrimis approximatis lanceolatis 3–9-jugis basi dilatatis confluentibus apice obtusis, maximis 6 mm. latis 3.5 cm. longis, terminale 1.5–6 cm. longo maxime variabili; nervo mediano flexuoso, nervis lateralibus alternis utrinque 10–11 haud procul a basi furcatis, ramis anticis liberis in segmentis superioribus soriferis, ramis posticis arcuatis marginem nec attingentibus, aut simplicibus aut furcatis aut anastomosantibus areolarum seriem unam formantibus; soris rotundis medio inter nervum medianum et marginem uniserialiter dispositis ca. 1 mm. diametro; sporangiis glabris ca. 20. — Los Amates, Department of Izabal, Guatemala, 11 February, 1905, *C. C. Deam*, no. 117 (type, in hb. Gray). The same fern, collected by *Tuerckheim* at Cubilquitz, Department of Alta Verapaz, December, 1900, was distributed as *Polypodium pubescens* Hook. et Grev., in John Donnell Smith's "Plants of Guatemala," no. 8053. *P. pubescens* is, without doubt, the nearest related species to *P. hispidulum*. It has, however, a much larger frond, with irregularly lacinate segments, which at the base of the frond are

widely separated and not at all confluent. The segments are also prevailingly opposite in *P. pubescens*, whereas in *P. hispidulum* they are alternate.

Paspalum guatemalense Bartlett, n. sp., perenne 6 dm. altum simplex vel ramosum; internodiis glabris lateraliter compressis, acie ad folii axillam versus canaliculatis; foliorum vaginis equitativis pilosis (praecipue juxta margines et ad ligulae basin) quam internodiis aut brevioribus aut longioribus margine brunneo-scareosis; ligula 2.5 mm. longa textura marginibus vaginarum simili; laminis lineari-lanceolatis 10–15 mm. latis 6–15 cm. longis apice acutis basi rotundatis vel subcordatis utrinque dense pilosis; spicis 1–3 sessilibus inter se 2.5–3.5 cm. distantibus 3–6 cm. longis; rhachi angusta glabra vel scabriuscula; pedicellis minute hispidulis; spiculis geminatis altera breviter altera longius pedicellata, geminis secus rhachin in seriebus duabus alternis; spiculis suborbicularibus 2.1 mm. longis 1.9 mm. latis glabris albican-tius viridibus antice planis postice valde convexis; gluma inferiore in spiculis geminorum superioribus suborbiculari apice rotundata quam spicula 6-plo brevior, in spiculis geminorum inferioribus longiore eccentrica late ovata obtusa vel acutiuscula; gluma secunda membranacea quam spicula paulo brevior 5-nervata, nervis juxta marginem anastomosantibus ad apicem in mucronem perbreve terminantibus; gluma tertia membranacea quam secunda longiore 3 (–5)-nervata; gluma quarta paleaque cartilagineis obscure nervatis; staminibus stylisque ut in speciebus generis reliquis. — A swamp at Gualan, Department of Zacapa, Guatemala, January 20, 1905, C. C. Deam, no. 427 (type, in hb. Gray). *P. guatemalense* is a member of Fournier's genus *Dimorphostachys*. Following his arrangement of the group, the affinity of the new species is with *Dimorphostachys Schaffneri* Fourn., *D. variabilis* Fourn., and *D. Ghiesbreghtii* Fourn. Of these, only *D. Schaffneri* is represented in the Gray Herbarium. It may be at once distinguished from *P. guatemalense* by its glabrous foliage and larger ovate spikelets, acute at the apex. *D. variabilis* and *D. Ghiesbreghtii* both have pubescent spikelets, whereas those of *P. guatemalense* are perfectly glabrous.

STREPTOCHAETA SODIROANA Hack. Noteworthy among the plants collected by Mr. C. C. Deam in Guatemala is a specimen of the anomalous South American genus *Streptochaeta*. The genus consists of two species, and in its spirally arranged (not distichous) flower-scales forms a unique exception among the genera of grasses. When the generic affinity of Mr. Deam's plant was discovered, it became evident that the species might be identical with the Ecuadorian *S. Sodiroana* Hack. A portion of the specimen was sent to Professor Hackel, who has kindly

confirmed the apparent identity. This is by no means an isolated case of the occurrence of identical species in Ecuador and Guatemala, but it has peculiar interest from the marked character and rarity of the plant concerned. Mr. Deam's specimens were collected at Los Amates, Guatemala, 10 February, 1905, and distributed as no. 97 of his set. He writes that only a few plants were found, and that these were growing in rather wet situations deep in the virgin forest. An interesting morphological as well as systematic account of the species is given in Professor Hackel's original characterization, Oest. Bot. Zeitschr. xl, 111 (1890).

Fuirena zacapana Bartlett, n. sp., rhizomate perpendiculari elongato modice incrassato; culmis 9 dm. longis gracilibus ascendentibus hispidis vel ad basin glabriusculis ca. 8-foliis; foliorum vaginis 1.5-3 cm. longis dense hispidis; foliis linearibus utrinque hispidis usque ad 5 mm. latis, in partibus culmi inferioribus 1 cm. longis superne 9 cm. longis; capitulis 3-4, infimo solitario in axilla folii supremi pedunculato, reliquis plus minusve approximatis; spiculis in capitulo quoque 3-6 ovatis 4 mm. latis 8 mm. longis; squamis brunneis pubescentibus in spiculae basi suborbiculatis in apice ovatis trinerviis, in dorso recti-aristatis; sepalis 3 brunneis glabris duriusculis ovatis basi subcordatis longe unguiculatis apice rotundatis infra apicem in dorso breviaristatis, aristis retrorsum scabris; setulis 3 cum sepalis alternantibus superne retrorsum scabris quam achaenio multo brevioribus; achaenio longe stipitato mucronato sepala paene aequante. — In swamps, Gualan, Department of Zacapa, Guatemala, 13 January, 1905, *C. C. Deam*, no. 423 (type, in hb. Gray). This very distinct species is nearest to *F. simplex* Vahl, from which it differs in its lax habit, in the extreme development of pubescence on the leaf-sheaths, in its short perianth-bristles, and long-stiped achene.

Myriocarpa malacophylla Robinson & Bartlett, n. sp., arborea 4 m. altitudine; ramis curvatis crassiusculis molliter lignosis siccitate corrugato-rugulosis pallide griseis juventate tomentosis aetate glabratiss, lenticellis paucis sparsis; foliis membranaceis late ovatis cordatis breviter caudato-acuminatis serratis 17 cm. longis 11 cm. latis supra more generis sparse pilosis et cystolithis radiantibus instructis subtus molliter tomentosis griseis, apice caudiformi ca. 1 cm. longo, nervis lateralibus utrinque 4-5; petiolo 1.7-2 cm. vel ultra longo tomentoso; inflorescentiis omnino sessilibus ca. 1 cm. supra basin furcatis; ramis 1-2 dm. longis griseo-tomentosis unilateraliter floriferis; floribus ♀ arcte sessilibus; calyculo 2-phylo brevissimo villosa; ovario lenticulari-ovoideo 0.7-0.9 mm. longo villosa-hispidulo; floribus ♂ etiam sessilibus, sepalis 4 ovatis obtusis villosis, staminibus 4. — Gualan,

Department of Zacapa, Guatemala, 12 January, 1905, *C. C. Deam*, no. 361 (type, in hb. Gray); Maria Madre Island, Tres Marias Islands, May, 1897, *E. W. Nelson*, no. 4275 (hb. Gray). This species appears to be either monoecious, as in Mr. Deam's specimen, which has staminate flowers at the base of some of the pistillate inflorescences, or it may be dioecious, as in Mr. Nelson's specimen, in which all the flowers are staminate. The species appears to stand nearest *M. cordifolia* Liebm., but differs in its ovate rather than suborbicular less rugose leaves and wholly sessile inflorescences.

Polygonum longiocreatum Bartlett, n. sp., caule simplici ca. 7 dm. alto, ad nodos inferiores radicanti; internodiis 1.5–2 cm. longis glabris; ocreis cylindricis eciliatis 1.5–1.7 cm. longis, in parte inferiore caulis quam internodiis brevioribus, plus minusve inflatis, in parte superiore imbricatis; foliis lanceolatis 1.5–3 cm. latis 9–13 cm. longis perbreviter petiolatis, apice basique acutis, utrinque glabris pellucidopunctatis, margine nervisque subtus scabris; spicis ca. 9, paniculatis erectis 4–5 cm. longis; pedunculis pedicellisque glabris; ocreolis rubris 2 mm. longis tri-vel quadrifloris; calyce rubro 5-partito; staminibus 7 styloque (solum in extremo bifido) inclusis; achenio lenticulari 2 mm. longo nigro, ad basin rotundato, ad apicem abrupte acuto, faciebus convexis. — In a swamp at Gualan, Department of Zacapa, Guatemala, January 14, 1905, *C. C. Deam*, no. 374 (type, in hb. Gray). The obvious affinity of *P. longiocreatum* is with *Polygonum spectabile* Mart., from which it differs in not having glandulose-scabrous peduncles. In his treatment of *P. spectabile* in De Candolle's *Prodromus*, Meisner cites two earlier-published species of Weddell as possible synonyms. Dr. Small accepts, in his "Monograph of the N. A. Species of *Polygonum*," one of Weddell's names, *Polygonum ferrugineum*, as an available name for *P. spectabile* Mart. Whether he applies the name correctly or not, *P. longiocreatum* may be distinguished from the *P. ferrugineum* of Small's monograph by the style, which in the former is bifid only at the end, and by the long pedicellate flowers, small achenes, and short-petioled leaves.

Ruprechtia Deamii Robinson, n. sp., fruticosa (♀ solum visa); ramis flexuosis glabris in specimine exsiccato sulcato-rugosis brunneis, internodiis 7–30 mm. longis, ocreis membranaceis griseo-castaneis vix 0.6 mm. longis; foliis magnis oblongis coriaceis penninerviis 10–18 cm. longis 5.5–8 cm. latis integerrimis concoloribus utrinque prominulenter reticulato-venulosis subtus in nervis patenter fulvo-pubescentibus et in venulis puberulis, basi rotundatis vel modice angustatis, apice obtusis vel rotundatis, petiolo brevissimo crassiusculo supra leviter canaliculato ca. 3 mm. longo; racemis numerosis fructiferis 2–6 cm. longis solitariis

vel usque ad 3 fasciculatim aggregatis patentibus vel deflexis subdensifloris, tomentosis; bracteis ovatis subacuminatis brunneis adpresse villosis; pedicello fructifero filiformi 2-3 mm. longo tomentoso; calyce fructifero ca. 3.5 cm. longo, tubo anguste ovoideo molliter subadpresse tomentoso ca. 6-7 mm. longo ca. 4 mm. diametro, alis 2.5 cm. longis 5 mm. latis spatulato-oblongis glabriusculis 3-nerviis reticulato-venosis apice rotundatis pallide viridibus subdiaphanis; sepalis interioribus subulatis glabris, parte libera ca. 4 mm. parte adnata ca. 1.5 mm. longa; achaenio attenuato-ovoideo obtusissime trigono, angulis tumidis leviter sulcatis in parte superiore sulci pubescentibus; stylis liberis, stigmatibus linearibus recurvatis. — Gualan, Department of Zacapa, Guatemala, alt. 128 m., January 11, 1905, *C. C. Deam*, no. 231 (type, in hb. Gray). This species belongs to the § *Hexasepalae* of Meisner, and § *Pseudoruprechtia* of Benthams and Hooker, these authors dividing the genus on different characters. It is nearly related to *R. Cumingii* Meisn., known to the author only from Meisner's description (DC. Prod. xiv, 179). If the characters there given are correct, the plant here characterized is certainly distinct, as is shown by its larger leaves, longer calyx, the presence of pubescence on the lower surface of the leaves, decidedly rugose branches, spreading or deflexed racemes, etc.

Aeschynomene Deamii Robinson & Bartlett, n. sp., fruticosa 2 m. alta laxa ramosa aspectu glabra; caulibus teretibus lignescentibus striatulis fusco-brunneis glabris; foliis petiolatis oblongis 5-7 cm. longis; foliolis ca. 18-jugis lineari-oblongis glabris utrinque viridibus supra minutissime nigro-punctatis subtus pinnatim venosis basi obliquis apice rotundatis mucronatis 9-10 mm. longis 2 mm. latis; rhachi supra sparse puberula subtus glabra; petiolo 1 cm. longo; stipulis 1.5 mm. longis subulatis brunneis acutissimis; racemis axillaribus 2-7-floris; pedunculis 10-17 mm. longis filiformibus glabris; bracteis ovatis herbaceis margine scariosis apice acutis supra basin affixis basi rotundatis liberis; pedicellis anthesi ca. 4 mm. longis fructiferis ca. 6 mm. longis; calyce glabro 2-partito, labio dorsali ovato ca. 7 mm. longo ca. 5.5 mm. lato obtusiusculo, labio ventrali angustiore ca. 9 mm. longo acuto; vexillo obovato 12 mm. longo 10 mm. lato apice rotundato basi modice angustato; alis semiobovatis basi a latere superiore obtuse auriculatis; carinae petalis ca. 11 mm. longis; staminibus quinque connatis; legumine ca. 13-seminato ca. 1 dm. longo 6.5 mm. lato fragili utrinque undulato, segmentis subquadratis margine crassiusculo faciebus glaberrimis levibus modice nervosis nec rugosis; seminibus atrobrunneis lunatis levissimis subnitidis 5 mm. longis 3 mm. latis. — San Felipe, Department of Izabal, Guatemala, 15 February, 1905, *C. C. Deam*, no. 26 (type, in hb. Gray). In its numerous leaflets of oblong-linear shape

this species somewhat resembles *A. americana* L., *A. hispida* Willd., and *A. sensitiva* Sw. It has, however, flowers which are much larger than those of *A. sensitiva*, and somewhat larger than those of the other species mentioned. It differs furthermore from *A. hispida* in its entire not dentate bracts, and from both *A. americana* and *A. hispida* in its essentially glabrous foliage and fruit.

CASSIA EMARGINATA L., var. *subunijuga* Robinson & Bartlett, n. var., foliolis saepissime 2 late oblongo-ellipticis 6-7 cm. longis 4-5 cm. latis supra molliter pubescentibus subtus flavido-tomentosis. — Gualan, Department of Zacapa, Guatemala, 15 January, 1905, *C. C. Deam*, no. 220 (type, in hb. Gray). This variety appears to agree in flowers and fruit with the typical form, but it is noteworthy in habit by reason of the striking reduction in the number of leaflets to two. Occasionally, however, leaves with four leaflets occur on individuals on which most of the leaves have but two leaflets; so there is reason to suppose that the plant is merely a varietal development from a form with more numerous leaflets, rather than a separate species.

Mimosa (*Habbasia*) *gualanensis* Robinson & Bartlett, n. sp., ser. *Leptostachyarum*, caulibus gracilibus lignosis 4 m. longis aculeatis tomentellis, aculeis sparsis parvis valde recurvatis compressis inaequalibus maximis vix 2 mm. longis brunneis; foliis majusculis 27 cm. latis; pinnis 3-jugis 9-14 cm. longis; foliolis obovato-oblongis 2-4-jugis 4-5 cm. longis 2.4-3 cm. latis firmissimis supra reticulatis utrinque glabris, petiolo 7 cm. vel ultra longo rhachique valde armatis aculeis sparsis numerosis recurvatis 0.7-2 mm. longis; rhacheolis etiam basin versus aculeolatis; spicis gracilibus 5 cm. longis densifloris breviter pedunculatis, pedunculis tomentellis; floribus 2 mm. longis; calyce 1.2 mm. longo campanulato brevissime 5-dentato extus tomentello; petalis 5 calyce subduplo longioribus oblanceolato-oblongis; staminibus 10 maturitate modice exsertis; legumine immaturo 10 cm. longo 1.3 cm. lato 15-seminato plano tenui glabriusculo leviter arcuato, stipite crassiusculo tomentello tereti 5-6 mm. longo. — Gualan, Department of Zacapa, Guatemala, 19 January, 1905, *C. C. Deam*, no. 224 (type, in hb. Gray). This species, although clearly of the *Leptostachyae*, does not appear to be very closely related to any other. It should probably be placed near *M. guatemalensis* Benth., and *M. spirocarpa* Rose.

Tetrapteris emarginata Bartlett, n. sp., fruticosa procumbens 3-5 m. longa; ramis oppositis glabris griseo-brunneis; ramulis viridibus nigro-punctatis; foliis oppositis, aetate utrinque glabris, juventate albo-sericeis pilis mox deciduis, forma valde variabilibus, in ramulo florifero sessilibus vel perbreviter petiolatis suborbiculatis 1-1.5 cm. diametro cordatis emarginatis saepe mucronulatis, in ramulo foliifero

breviter petiolatis ovatis 4 cm. longis basi obtusis apice acutis; ramulis floriferis in quasi-umbellas quadrifloras terminantibus; pedunculis 7-8 mm. longis cum pedicellis aequilongis articulatis; bracteis pedunculorum bracteolisque pedicellorum lanceolatis minutis; sepalis 5 albicantius viridibus 2 mm. longis, 4 basi biglandulosi glandulis magnis; staminibus glabris calycem valde superantibus, omnibus basi coalitis; ovariis in unum pyramidatum faciebus concavis coalitis; fructu albolanuginoso dorso medio cristato crista integra glabra; fructus alis glabris viridibus rubro-tinctis anguste oblongis, duobus exterioribus ca. 13 mm. longis, duobus interioribus ca. 9 mm. longis. Petala non visa. — Gualan, Department of Zacapa, Guatemala, January 19, 1905, C. C. Deam, no. 150* (type, in hb. Gray). *Tetrapteris emarginata* belongs among the glabrous-leaved species of Jussieu's § *Tetrapteris* * *Anisopterae*. It may be easily distinguished from any of the Mexican species by the leaves of the flowering branches.

Euphorbia ephedromorpha Bartlett, n. sp., basi lignescenti; ramis prostratis modice crassis longitudine usque ad 10 dm. saepe simplicibus viridibus flexuosis aphyllis juventate valde compressis, aciebus ambabus bialatis; internodiis 2-4 cm. longis minute granulatis glabris vel perexiguis pilosis, in marginibus alarum minutissime scabratibus; nodis haud incrassatis corpore papillato (nonne cum folio aequivalenti?) praeditis; stipula una glanduliformi crateriformi pilosa recte super papillam (de qua vide supra) et quam eandem parviore; cymis axillaribus et terminalibus dichotomis 2-12-cyathiis valde glanduloso-pilosis bracteatis; bracteis ad dichotomias oppositis 1.8 mm. longis linearispatulatis dense glanduloso-pilosis; cyathiis anguste conicis 3 mm. longis glanduloso-pilosis; pedicellis gracilibus cyathiis aequilongis; involucri segmentis propriis perbrevibus flabelliformibus ad mediam digitatim 7-8-laciniatis; glandulis 5 planis transverse ovatis marginatis appendiculatis; appendicibus rectis quam glandulo 8-plo quam involucri segmentis triplo longioribus anguste spatulatis glabris; stylo brevi usque ad basin bifido; ovario 2 mm. longo glabriusculo stipitato, stipite cyathio paulo longiore; seminibus lilacinis ovoideis foveolatis. — Gualan, Department of Zacapa, Guatemala, 11 January, 1905, C. C. Deam, no. 232 (type, in hb. Gray). In regard to this species Mr. Deam writes: "I recall the place where it grew very vividly. There is a road leading from Gualan to the Motagua River, and as is the case with all travelled ways in Guatemala, it is washed into deep gullies. This plant (no. 232) was found in the nude, rocky, dry soil at the side of the road, on an angle of about 75°. It grew prostrate in patches extending over an area perhaps six feet square. The soil was of a red type, similar to that around Chattanooga and Atlanta. I did not see it in any other

place." *Euphorbia ephedromorpha*, a unique plant in both habital and technical characters, belongs to the § *Alectoroctonum*. The only *Euphorbia* of the same affinity which has been seen is in the Gray Herbarium from Cerro Quiengola, Oaxaca, Mexico, *Caec. et Ed. Seler*, no. 1611. It represents a clearly distinct new species of very similar habit, but it cannot be described on account of the scantiness of the material.

Acalypha euphrasiostachys Bartlett, n. sp., fruticosa ramosa 1 m. altitudine; ramulis junioribus molliter pubescentibus ochraceis aetate glabriusculis rubentibus; foliorum limbis ovatis 3-8 cm. longis 2-4.5 cm. latis dentatis utrinque molliter pubescentibus vel supra solum secus nervos pilosis, apice acutis vel caudato-acutis, basi maxime variabilibus acutis rotundatis vel subcordatis; petiolis limbo ca. quintuplo brevioribus; spicis masculis axillaribus sessilibus ca. 1 cm. longis nunquam ad basin bracteis femineis praeditis; spicis femineis axillaribus 2.5-7 cm. longis 4-7-bracteatis, dispositione formaque bractearum speciebus alpinis generis *Euphrasiae* persimilibus; bracteis femineis 8 mm. longis 10 mm. latis unifloris 13-dentatis, dentibus modice longis alternis brevioribus; calycis masculi segmentis 4 ovatis 0.5 mm. longis, feminei segmentis 3 ovatis ca. 1 mm. longis; ovario dense piloso; stylis viridibus bracteo exsertis 7 mm. longis multilacinuligeris. — Zacapa, Department of Zacapa, Guatemala, 24 January, 1905, *C. C. Deam*, no. 190 (type, in hb. Gray). A species near Watson's *Acalypha multispicata*, which has very similar fertile spikes.

Clusia quadrangula Bartlett, n. sp., arborea 5-6 m. alta ubique glabra; ramis modice crassis subteretibus; foliis coriaceis ovatis 3-4 cm. latis 7-11 cm. longis, apice basique acutis, petiolo quam limbo quintuplo brevioribus; nervis lateralibus numerosis parallelis utrinque prominulis inter se 1-2 mm. distantibus angulo ca. 45° a costa abeuntibus; inflorescentia terminali quam foliis superis duplo breviora ramosa, ramulis angulosis plerumque in florem unum brevipedicellatum terminantibus; bracteolis infimis semi-ovatis basi connatis, sequentibus (a sepalis non different) sepalisque 14-16 per paria decussatis coriaceis semi-ovatis cordatis dorso carinatis, collective obpyramidatis quadrangulis (ex quo nomen specificum); petalis 4 coriaceis late ovatis quam sepalis duplo longioribus; staminibus pernumeris in receptaculo elevato valde concavo pentagono dense aggregatis liberis, omnibus antheriferis, filamentis perbrevis paene nullis, antheris rimula longitudinali dehiscentibus, connectivis haud productis. Flores feminei ignoti. — Livingston, Department of Izabal, Guatemala, February 17, 1905, *C. C. Deam*, no. 56 (type, in hb. Gray). This *Clusia* has no obvious relationship with any heretofore described species. Until pistillate flowers are discovered it seems unwise to characterize a new section for its reception.

Following Engler's treatment of *Clusia* in Flora Brasiliensis, it is excluded from all the sections of the genus except § *Euclusia* by the character of the receptacle. From subsections *Oxystemon* and *Chlamydoclusia* of § *Euclusia* it is excluded by the muticous connective, and from *Cochlanthera*, the sole remaining subsection, by the four petals and very numerous stamens.

Rinorea deflexiflora Bartlett, n. sp., fruticosa 2.5 m. alta dichotome ramosa glabra novellis inflorescentiisque puberulis exceptis; ramis gracilibus juventate brunneolis aetate albobrunneolis glabris; lenticellis numerosis albis; internodiis superioribus ca. 11 cm. longis; nodis modice incrassatis in gemmam floriferam terminantibus; foliis oppositis cuneato-ovatis 4-12 cm. latis 8-24 cm. longis remote serratis caudato-acuminatis basi angustatis subcordatis supra atroviridibus subtus pallidioribus; petiolis 2-4 mm. longis; stipulis subulato-lanceolatis 7 mm. longis; inflorescentiis ubique puberulis inter ramos dichotomiarum terminalibus simplicibus 6 cm. longis; floribus ca. 15 longipedicellatis nutantibus bracteatis; pedicellis gracilibus 6 mm. longis deflexis; bracteis 3, una pedicellum subtendente, duabus infra pedicelli mediam suboppositis; sepalis 5 aequalibus acutis extus puberulis margine ciliatis 2 mm. longis; petalis 5 aequalibus oblongis 5 mm. longis haud unguiculatis apice valde revolutis; staminibus 5 glabris 3.5 mm. longis basi haud connatis; filamentis 1.3 mm. longis, anticis ad basin in dorso glandulae oblongae 0.8 mm. longae adnatis; connectivis in squamam ovatam lacero-ciliatam antherae loculis dimidio longiorem productis; stylo glabro stamina superante; ovario dense piloso. — Livingston, Department of Izabal, Guatemala, February 18, 1905, C. C. Deam, no. 61 (type, in hb. Gray). Four species of *Rinorea* or *Alsodeia* are now definitely known from north of Panama. One of them, the Mexican plant described by Watson as *Alsodeia parvifolia*, is of very doubtful generic affinity. The other old species are *Rinorea silvatica* (Seem.) O. K. and *Rinorea guatemalensis* (Wats.) Bartlett, n. comb. (*Alsodeia guatemalensis* Wats., Proc. Am. Acad. xxi. 458). Points which distinguish *R. deflexiflora* from the former are that in *R. silvatica* the spikes are nodding, the flowers are nearly sessile, and the sepals are almost as long as the petals. In *R. guatemalensis* the leaves are broadest at the middle and are acute at the base, as contrasted with the more cuneate, subcordate leaves of *R. deflexiflora*.

Hybanthus cymosus Bartlett, n. sp., fruticosus 3 m. altus; ramis gracilibus alato-angulatis glabratibus supra straminellis subtus viridibus; internodiis foliis brevioribus; foliis alternis ovatis 2-4 cm. latis 4.5-8 cm. longis serrato-crenatis glabratibus basi acutis subsessilibus, apice rotundato-obtusis; stipulis lineari-subulatis usque ad 2 mm. longis;

floribus in cymas racemosas 15–30-floras axillares terminalesve aggregatis; cymarum bracteis perparvis ovato-deltoideis albidis; pedunculis 3–8 mm. longis; pedicellis 5 mm. longis breviter supra basin articulatis; sepalis. ca. 1.6 mm. longis puberulis subaequalibus; petalis glabris in fructu persistentibus, duobus posticis ovatis apice truncatis 2.4 mm. longis, duobus intermediis aequilongis subquadratis breviter apiculatis ad basin antrorsum brevi-auriculatis, antico 1.9 mm. longo trinervio inter mediam apicemque constricto, parte inferiore (ungue) ampulliformi, parte superiore (limbo) multo parviore suborbiculari apice bilobata; staminibus 2 mm. longis inter antheras connatis tubum formantibus, tribus posticis triangulo-appendiculatis, filamentis perbrevis liberis, duobus anticis appendicibus connatis, filamentis extus ad basin glandulae late scutiformi adnatis, glandula gibbositati petali antici conformali, loculis duobus contiguis antherarum anticarum abortivis; stylo corolla paululo longiore; capsula glabra viridi 6 mm. diametro 9 mm. longa. — Gualan, Department of Zacapa, Guatemala, 19 January, 1905, *C. C. Deam*, no. 385 (type, in hb. Gray). A species well marked by the combination of alternate leaves, numerous cymose axillary inflorescences, and short lower petal. In general structure it is most closely allied to such South American species as *Ionidium atropurpureum* St. Hil. and *I. Sprucei* Eichl.

Ipomoea anisomeres Robinson & Bartlett, n. sp., volubilis; caule gracili lignescenti glabro subtereti 3–6 m. longitudine a cortice brunnescenti-griseo oblecto aetate papilloso-scabrato; foliis ovatis integris profunde sinu patenti cordatis acutiusculis vel subattenuatis et in apice emarginato cum nervo excurrenti apiculatis penninerviis 6–11 cm. longis 4–7 cm. latis utrinque glabris subtus pallidioribus; petiolo gracili glabro 3–5 cm. longo; pedunculis axillaribus solitariis 3.5–6 cm. longis in summa parte composite cymoso-ramosis; pedicellis 1.5–2 cm. longis modice gracilibus sursum plus minusve incrassatis glabris; sepalis glabris margine albis 2 exterioribus 1–3 mm. longis suborbicularibus obtusis vix herbaceis 3 interioribus 1 cm. longis ellipticis apice rotundatis; corolla late infundibuliformi alba vel praesertim in faucibus purpurascenti 6.5–7 cm. longa, limbo 4–5 cm. lato subintegro, faucibus 1 cm. diametro 3.5 cm. longis cylindratis deorsum in tubum brevem (ca. 1 cm. longum) proprium angustatis; capsula ovoidea acuta 10–12 mm. longa glabra biloculari; seminibus 4 griseo-fuscis breviter pubescentibus. — Gualan, Department of Zacapa, Guatemala, 12–14 January, 1905, *C. C. Deam*, nos. 318 and 319 (types, in hb. Gray). This species appears to fall into § *Inaequisepalae*, as defined by Peter in Engl. & Prantl, Nat. Pflanzenf. iv. Ab. 3, 29. The specific name alludes to the strikingly unequal sepals.

Cordia truncatifolia Bartlett, n. sp., arborea 5-7 m. altitudine; ramulis 2-3 mm. crassis flexuosis juventate griseo-ferrugineis pubescentibus aetate griseis glabris ad nodos incrassatis; foliorum cicatricibus reniformibus vel in ramulis vetustioribus lunatis, interdum gemma accessoria inter cornua infra gemmam normalem praeditis; foliis late ovatis maximis infra mediam 5 cm. latis 7.5 cm. longis integerrimis vel apicem versus crenato-dentatis basi obtusis truncatis apice plerumque abrupte acutis supra scabris atroviridibus subtus velutino-pubescentibus griseo-viridibus, petiolis quam 8 mm. brevioribus; cyma dichotoma pauciflora foliis brevior omnino ferrugineo-pubescenti; pedicellis gracilibus 2-7 mm. longis; calyce campanulato ca. 1 cm. longo juventate 5 mm. diametro ad fructus maturitatem plus minusve inflato 5-nervato 5-laciniato, laciniis irregulariter angustodeltoideis; corolla alba (?) infundibuliformi 15 mm. longa extus intusque puberula usque ad mediam 5-lobata, tubo brevi, lobis rotundis 7 mm. latis; staminibus 5 baseis loborum vix attingentibus, filamentis 5 mm. longis; stylo stamina aequante apice bis bifido; drupa (immatura) ovoidea minute puberula mucronata calyce inclusa. — Zacapa, Department of Zacapa, Guatemala, January 23, 1905, C. C. Deam, no. 160 (type, in hb. Gray). In no. 160^a, collected at the same locality, the flowers and foliage are greatly reduced in size, a variation no doubt purely ecological. The shape of the leaves, which are remarkably like those of *Polygonum cuspidatum* Sieb. et Zucc., suffices to distinguish *Cordia truncatifolia* from all other species of *Sebestenoides*.

Russelia rugosa Robinson, n. sp., fruticosa; ramis ramulisque 6-angularibus tomentello-puberulis pallide griseis; internodiis 5-8 cm. longis; foliis oppositis vel ternis late ovatis obtusiusculis grosse crenato-serratis basi integerrimis cuneatis supra scabris valde rugosis atroviridibus subtus vix pallidioribus laxe reticulato-venosis breviter pubescentibus 5.5-8 cm. longis 2.6-4.8 cm. latis, petiolo crassiusculo 5 mm. longo supra canaliculato pubescenti; cymulis subsessilibus axillaribus verticellastros parvifloros formantibus; calycis lobis lanceolato-linearibus angustissimis caudato-attenuatis sordide pubescentibus nigrescentibus 5-6 mm. longis; corolla tubiformi verisimiliter coccinea 11-12 mm. longa pubescenti; capsula ovoidea nigrescenti levi nitida 4 mm. longa. — Gualan, Department of Zacapa, Guatemala, alt. 128 m., 18 January, 1905, C. C. Deam, no. 183 (type, in hb. Gray). A species pretty well marked in the genus by its large and very rugose leaves.

Tetramerium gualanense Robinson & Bartlett, n. sp., suffrutescens 1 m. altum ramosum, novellis viscoso-pubescentibus; caulibus subquadrangularibus lilacino-griseis minute albido-maculatis maturitate subglabris; foliis oppositis petiolatis membranaceis subconcoloribus

scabriusculis ovatis acute subcaudateque acuminatis integerrimis, limbo 6–8 cm. longo 3.5–6 cm. lato pinnatim nervatis basi acutis in nervis sparse puberulis aetate glabratis cystolithis conspicuis instructis, petiolo 1.5–2.5 cm. longo gracili supra canaliculato puberulo subtus rotundato glabro; spicis subdensis 2.5–4.5 cm. longis 1.3 cm. crassis ramulos oppositos terminantibus; bracteis obovatis cuneatis integerrimis acutis 5-nerviis utrinque glanduloso-pubescentibus 1 cm. longis 5 mm. latis, basi attenuatis; bracteolis binis oblanceolatis acutis cymbiformibus 9–10 mm. longis basi attenuatis in latere altero usque ad mediam in altero vix supra basin connatis; calyce 5-partito, lobis anguste lanceolatis acutissimis apice hispidulis; corolla subaequaliter 4-partita alba 1.5 cm. longa glabra, lobis anguste oblongis obtusis ca. 9 mm. longis; staminibus 2 lobos corollae subaequantibus in summo tubo insertis; antherarum loculis 2 summo subaequi-altis basi loculo uno plus minusve calcarato; stylo clavato; stigmate bifido; capsula obovata acuminata glabra valde compressa ca. 2 mm. longa ca. 2 mm. lata, stipite obcompressa 2 mm. longo; seminibus 2 lenticularibus fulvis 2.6 mm. longis in latere interiore glabriusculis in latere exteriori crispo-pubescentibus. — Gualan, Department of Zacapa, Guatemala, 18 January, 1905, *C. C. Deam*, no. 397 (type, in hb. Gray). In the form of its inflorescence and bracts this species approaches the members of the genus which have sometimes been separated as *Henrya*.

Isertia Deamii Bartlett, n. sp., arbor parva 5 m. alta; ramis ramulisque crassis inferne subteretibus superne obtuse quadrangulis sordide tomentosis; internodiis 4–5 cm. longis; foliis 20–30 cm. longis 8–11 cm. latis utrinque acutis supra glabris subtus griseo-tomentosis, petiolo limbis 10-plo brevioribus; stipulis 6–9 mm. longis triangulis persistentibus; inflorescentia foliis multo brevioribus paniculata ca. 10 cm. longa, ramulis tomentosis ascendentibus 7–20 mm. longis, pedicellis 2–5 mm. longis, bracteis bracteolisque triangulis parvis; calyce fuscato hemi-ellipsoidali truncato nec distincte dentato; corolla ca. 30 mm. longa coccinea extus, lobis limbi exceptis, tomentosa, lobis 7 mm. longis obtusatis extus glabris intus lanugine flavo tectis; staminibus 6 inclusis tubo adnatis, antheris circum stigmata connatis; stylo apice in ramulos sex ca. 6 mm. longos terminanti; bacca calyce coronata 6-pyrena. — Puerto Barrios, Department of Izabal, Guatemala, 24 February, 1905, *C. C. Deam*, no. 48 (type, in hb. Gray). *Isertia Deamii*, the third Middle-American species of the genus, is not similar enough to either of the old species to be confused with them.

✓ *Liabum caducifolium* Robinson & Bartlett, n. sp., fruticosum; caulibus teretibus striatulis griseo-fuscis glabris delapsu foliorum nudis, internodiis 6–8 cm. longis; inflorescentiis laxo corymboso-pan-

iculatis, ramis oppositis nudis patentibus vel arcuato-ascendentibus multicapitulatis, bracteis lanceolatis utrinque acutis integerrimis graciliter petiolatis supra glabris subtus arachnoideo-tomentosis, petiolo planiusculo glanduloso-hispidulo; pedicellis filiformibus 1-5 mm. longis; capitulis discoideis 6-floris; involucri squamis 13 acutis ciliolatis exterioribus ovato-lanceolatis 1 mm. longis interioribus gradatim longioribus angustioribusque intimis linearibus vel lineari-lanceolatis 5 mm. longis; flosculorum omnium corollis 6.5 mm. longis gracilibus sursum gradatim ampliatis sine faucibus distinctis, dentibus limbi linearibus ad apicem obtusiusculum attenuatis; pappi setis biseriatis exterioribus brevibus paucis planiusculis interioribus ca. 40 capillaribus fulvescentibus sursum scabriusculis. *Achaenia immatura*. — Near Acapulco, Guerrero, Mexico, between October, 1894, and March, 1895, *Dr. E. Palmer*, no. 245 (type, in hb. Gray). This species belongs to § *Andromachia*, and is closely related to *L. glabrum* Hemsl., but it differs in its much looser corymbose-paniculate inflorescence, its shorter involucre, and much more attenuate involucreal scales.

Liabum Deamii Robinson & Bartlett, n. sp., scandens 3-5 m. longum; caulibus anthesi delapsu foliorum ignotorum nudis subteretibus lanulosis albidis, internodiis 2-4 cm. longis, nodis crassiusculis; inflorescentiis ovoideis thyrsoideis multicapitulatis albido-lanuginosis 1-1.5 dm. longis 5-8 cm. diametro; bracteis petiolatis ovatis integris discoloribus supra leviter griseo-pubescentibus subtus albo-lanatis; ramulis 3-5-capituliferis; capitulis discoideis 6-floris subsessilibus vel brevissime pedicellatis; involucri squamis ca. 13 obtusis exterioribus ovatis ca. 2 mm. longis externe pubescentibus interioribus gradatim majoribus 3-4 mm. longis ovato-oblongis apicem versus pubescentibus; flosculis ♀ involucre longe exsertis, corollis glabris verisimiliter flavidulis 7 mm. longis, faucibus cylindratis tubum proprium graciliorem subaequantibus, dentibus limbi patentibus anguste lanceolatis acutissimis; achaeniis 2.5 mm. longis deorsum angustatis griseo-olivaceis modice compressis striatulis breviter pubescentibus; pappi setis 2-seriatis exterioribus paucis subpaleaceis 1-2 mm. longis interioribus ca. 50 capillaribus sursum minute scabratis ca. 6 mm. longis albidis. — Gualan, Department of Zacapa, Guatemala, *C. C. Deam*, no. 194 (type, in hb. Gray). This species clearly belongs to the § *Andromachia*, and appears to be nearest *L. glabrum* Hemsl., from which it may be distinguished, however, by its pubescence and much shorter involucre, the latter scarcely exceeding the achenes.



Robinson, Benjamin Lincoln and Bartlett, Harley Harris. 1907. "New plants from Guatemala and Mexico, collected chiefly by C. C. Deam." *Contributions from the Gray Herbarium of Harvard University* (34), 48–60.

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