

INDEX

- Abrus precatorius*, 162
Abutilon crispum, 22, 163
Acer capillipes, 393
— *rufinerve*, 393
Achyranthes indica, 157
Acidoton urens, 11, 16, 18, 25, 160
Additional Notes on the Vesselless Dicotyledon, *Amborella trichopoda* Baill., 374
Adenanthera pavonina, 11, 162
Adiantum fragile, 153
— *latifolium*, 153
— *pulverulentum*, 153
— *tenerum*, 153
Adinandra greenwayi, 204
— *intermedia*, 203
— *mannii*, 199
— *schliebenii*, 202
— — *glabra*, 203
— — *greenwayi*, 204
— — *intermedia*, 203
Adinandropsis, 203
Aechmea paniculigera, 154
Aeschynomene americana, 162
Agave sisalana, 154
Ageratum conyzoides, 159
Albizia berteriana, 162
Alchornea latifolia, 11, 13–15, 17, 18, 160
Allophylus cominia, 11, 13, 17, 18, 25, 167
— *jamaicensis*, 167
Alsophila, 29
Amaranthus dubius, 157
— *polygonoides*, 157
— *spinosus*, 157
Amblynotopsis, 255
Amborella trichopoda Baill., Additional Notes on the Vesselless Dicotyledon, 374
Ambrosia, 34
— *paniculata*, 9, 159
Amyris elemifera, 26, 167
— *plumieri*, 167
Anacardium occidentale, 157
Andira inermis, 11, 12, 14, 17, 18, 162
Andrachne brittonii, 171
Andropogon glomeratus, 9, 22, 34, 155
— *virginicus*, 22, 155
Aneimia adiantifolia, 153
Annona jamaicensis, 17, 18, 157
— *muricata*, 157
Anthacanthus armatus, 157
Anthephora hermaphrodita, 155
Anthurium grandifolium, 16, 154
Anthurium scandens, 154
Antidesma, 72
Antiphytum, 255
Antirrhoea jamaicensis, 166
Apium leptophyllum, 168
Aporosa, 72
Aporosella, 72
— *hassleriana*, 72
Arachis hypogaea, 162
Arnebia tetrastigma, 272
Arnold Arboretum during the Fiscal Year Ended June 30, 1957, The. The Director's Report, 389
Artocarpus communis, 164
— *integrifolia*, 164
Ascarina, 112, 115
Asclepias curassavica, 9, 157
— *nivea*, 9, 157
Aspidium, 29
Asplenium auritum, 153
— *dentatum*, 153
— *jamaicense*, 153
Aster exilis, 34, 159
Austrobaileya, 112, 115
Averrhoa acida, 66
— *bilimbi*, 71
— *carambola*, 71
— *ramis . . . subrotundis*, 66
Axonopus compressus, 22, 155
Ayenia pusilla, 22, 168
Bahama Islands, The Species from Puerto Rico and the Virgin Islands and from the. Studies in the Genus *Coccoloba*, IV, 211
BAILEY, I. W. Additional Notes on the Vesselless Dicotyledon, *Amborella trichopoda* Baill., 374
BAILEY, I. W. The Potentialities and Limitations of Wood Anatomy in the Study of the Phylogeny and Classification of Angiosperms, 243
BAILEY, I. W. and ABRAHAM FAHN. The Nodal Anatomy and the Primary Vascular Cylinder of the Calycanthaceae, 107
Bambusa vulgaris, 155
Bastard Cherry, 97
Bauhinia divaricata, 11–14, 16, 18, 24–26, 162
Bauxitic Soils in Jamaica, The Vegetation on, I; II, 151

- Beach Grape, 88
Begonia glabra, 158
 — *purpurea*, 158
Bernardia carpinifolia, 160
 Bibliography of the Published Writings of the Staff and Students July 1, 1956–June 30, 1957, 401
Bidens cynapiifolia, 159
 — *pilosa*, 9, 159
 Big Family, 92
Blakea trinervia, 18, 19, 163
Blechnum brownii, 157
Bletia florida, 156
Blighia sapida, 167
Bocconia frutescens, 34, 165
Boehmeria jamaicensis, 168
Boerhavia diffusa, 164
 — *erecta*, 164
 Boraginaceae, Studies in the, XXIX. *Echiochilon* and Related Genera, 255
Borreria laevis, 9, 34, 166
 — *verticillata*, 9, 166
Borreria succulentata, 158
 BOWDEN, WRAY M. Cytotaxonomy of *Potentilla fruticosa*, Allied Species and Cultivars, 381
Brassia caudata, 156
Breynia, 56
 — *disticha*, 363
Broughtonia sanguinea, 156
Brunfelsia americana, 12, 167
 — *jamaicensis*, 167
Bryophyllum pinnatum, 160
Buglossoides, 267, 281
Bunchosia jamaicensis, 12, 163
 — *media*, 163
 — *swartziana*, 18, 25, 163
Bursera simaruba, 23–25, 26, 158
Byrsonima coriacea, 163

Caesalpinia sepiaria, 162
Cajanus cajan, 36, 162
Calambreña, 215
Calliandra portoricensis, 22, 162
 Calycanthaceae, The Nodal Anatomy and the Primary Vascular Cylinder of the, 107
Calycanthus fertilis, 107
 — *ferax*, 107
 — *laevigatus*, 107
 — *floridus*, 107
 — *ovatus*, 107
 — *glaucus*, 107
 — *laevigatus*, 115
Calyptranthes chytraculia, 11, 16, 18, 24, 26, 164
 — *pallens*, 164

Campelia zanonii, 154
Campylocentrum barrettiae, 156
 — *sp.*, 16
Campyloneuron phyllitidis, 16
Canavalia ensiformis, 162
Capparis cynophallophora, 11–16, 26, 158
 — *ferruginea*, 158
Capsicum baccatum, 9, 167
 — *frutescens*, 167
Cardiospermum grandiflorum, 9, 167
 — *microcarpum*, 167
Carpinus, 29
 — *japonica*, 393
Carya illinoensis, 134
Casasia longipes, 24, 26, 166
 — *piricarpa*, 11, 166
Casaria aculeata, 11, 161
 — *guianensis*, 9, 11, 12, 14, 16–18, 22, 26, 161
 — *hirsuta*, 161
 — *odorata*, 11, 18, 161
 — *sylvestris*, 12, 18, 25, 161
Cassia ligustrina, 9, 162
 — *occidentalis*, 9, 162
 — *siamea*, 36, 38, 162
 — *uniflora*, 9, 162
Catharanthus roseus, 157
Catopsis berteroniana, 154
 — *nutans*, 154
Cecropia palmata, 15, 35
 — *peltata*, 15, 164
Cedrela odorata, 10, 11, 16, 36, 163
Ceiba pentandra, 10, 11, 35, 158
Celosia nitida, 157
Celtis swartzii, 11, 12, 25, 168
 — *trinervia*, 168
Cenchrus brownii, 155
 — *echinatus*, 22, 155
 — *gracillimus*, 22, 155
 Central America, The Genus *Juglans* in Mexico and, 121
Centrogenium setaceum, 156
Centrosema virginianum, 9, 162
Cereus sp., 16
 — *swartzii*, 158
 — *triangularis*, 158
Cestrum diurnum, 18, 167
Cheilanthes microphylla, 153
Cheramela, 66
 Chiggery Grape, 215
Chilochium, 261
Chimonanthus fragrans, 107
 — *praecox*, 107, 112, 115
Chiococca alba, 166
 — *parvifolia*, 16, 18, 19, 25, 166
Chloris petraea, 22, 155
 — *radiata*, 155

- Chlorophora tinctoria*, 164
Chorisandra pinnata, 52
Chrysophyllum cainito, 9, 167
Cicca, 60, 65
 — *acida*, 66
 — *acidissima*, 66
 — *disticha*, 66
 — *macrocarpa*, 79
 — *nodiflora*, 66
 — *racemosa*, 66
 — *scandens*, 66
Cionosicys pomiformis, 160
Cissampelos pareira, 9, 164
Cissus microcarpa, 9, 169
 — *sicyoides*, 9, 33, 34, 169
Citharexylum spinosum, 9, 169
Citrus aurantifolia, 167
 — *vulgaris*, 167
Clematis dioica, 19, 166
Cleome gynandra, 158
Clusia flava, 25, 161
 — *sp.*, 16, 19, 25
Coccoloba, Studies in the Genus, III. The Jamaican Species, 81
Coccoloba, Studies in the Genus, IV. The Species from Puerto Rico and the Virgin Islands and from the Bahama Islands, 211
Coccoloba, 82–84, 212–214
 — *antiguensis*, 231
 — *bahamensis*, 93
 — *barbadensis*, 88, 222
 — *billbergii*, 219
 — *børgesenii*, 91, 215
 — — *ovato-lanceolata*, 91, 215
 — *borinquensis*, 223
 — *buchii*, 236
 — *coronata*, 222
 — *costata*, 211, 214, 235–237
 — *diversifolia*, 26, 84, 88, 100–101, 165, 211–213, 222, 232–233, 238, 239
 — *excoriata*, 93, 106, 240
 — *grandifolia*, 228
 — *harrisii*, 101
 — *helwigii*, 235
 — × *jamaicensis*, 102–105
 — *klotzschiana*, 217
 — *krugii*, 84, 91–92, 211, 213, 215–216, 238, 242
 — — × *C. uvifera*, 212, 216–217
 — *kunthiana*, 220
 — *latifolia*, 227
 — *laurifolia*, 100, 212, 232
 — *leoganensis*, 103, 212
 — — *parvifolia*, 241
 — *leptostachyoides*, 93, 240
 — *litoralis*, 102
 — *longifolia*, 11, 18, 84, 95–100, 165, 232
 — *macrantha*, 225
 — *macrophylla*, 225
 — *microstachya*, 211–213, 217–220
 — — *lanceolata*, 217
 — — *ovalifolia*, 217
 — — *rotundifolia*, 217
 — *neglecta*, 89, 222
 — *nigra*, 106
 — *nivea*, 212, 214
 — *northropiae*, 211, 238, 241
 — *obtusifolia*, 217
 — — *barbadensis*, 212
 — — *jacquinii*, 212
 — — *parvifolia*, 212
 — *ovata*, 106
 — *parvifolia*, 217
 — *pirifolia*, 105, 220
 — *plumieri*, 10, 11, 83, 84–86, 165
 — *polystachya*, 104
 — — *jamaicensis*, 84
 — *praecox*, 222
 — *priorii*, 101
 — *proctori*, 24, 83, 86–87, 165
 — *pubescens*, 105–106, 211, 213, 227–231
 — *punctata*, 214, 217, 222
 — — *barbadensis*, 212
 — — *jacquinii*, 212, 220
 — — *microstachya*, 212
 — — *parvifolia*, 212
 — *pyrifolia*, 105, 211, 213, 220–222
 — *reflexa*, 222
 — *retusa*, 241
 — *rheifolia*, 227
 — *rotundifolia*, 236
 — *rubescens*, 228
 — *rugosa*, 211, 212, 213, 225–227
 — *rumicifolia*, 95, 106
 — *rupicola*, 235
 — *samuelssonii*, 235
 — *sintenisii*, 211, 214, 233–235
 — *sp.*, 235
 — *swartzii*, 10–16, 18, 24–26, 83, 88–90, 165, 211–213, 222–224, 238, 241–242
 — — *portoricensis*, 222
 — — *urbaniana*, 211, 213, 224–225
 — *tenuifolia*, 84, 92–95, 165, 211, 212, 238, 240–241
 — *troyana*, 83, 90–91
 — *urbaniana*, 224
 — *uvifera*, 83, 87–88, 165, 212, 213, 231–232, 238–239
 — — × *C. krugii*, 213, 214
 — *venosa*, 95, 106, 212, 214–215
 — — *major*, 95
 — *verruculosa*, 104, 235
 — *zebra*, 84, 101–102

- Coccolobis*, 82, 212
 — *antiguensis*, 228
 — *bahamensis*, 211, 240
 — *borinquensis*, 211, 224
 — *costata*, 235
 — *diversifolia*, 211, 241
 — *frutescens*, . . . *trigone*, 93, 240
 — *grandifolia*, 211, 228
 — *klotzschiana*, 211
 — *krugii*, 211, 242
 — *laurifolia*, 211, 232, 239
 — *leoganensis*, 239
 — *northropiae*, 211
 — *obtusifolia*, 211, 240
 — *pirifolia*, 211, 220
 — *pubescens*, 228
 — *rugosa*, 211, 225
 — *rupicola*, 211
 — *sintenisii*, 211, 233
 — *swartzii portoricensis*, 211
 — *tenuifolia*, 239
 — *uvifera*, 212, 232, 238
 — *venosa*, 212
 — *wrightii*, 239
Cocos nucifera, 156
Coffea arabica, 166
Cola acuminata, 168
Colocasia, 14, 38
 — *esculenta*, 154
Colubrina ferruginosa, 11, 22, 166
Columnnea fawcettii, 161
 — *sp.*, 161
Commelina elegans, 154
Comocladia pinnatifolia, 12–16, 18, 24, 157
Conami, 363
 — *brasiliensis*, 368
 — *conami*, 365
Corchorus siliquosus, 168
Cordia asperima, 158
 — *gerascanthus*, 158
 — *globosa*, 9, 22, 25, 34, 158
 — *jamaicensis*, 22, 25, 158
 — *macrophylla*, 158
 — *martinicensis*, 158
 — *nitida*, 158
 — *sebestena*, 229
Crabwood, 92
Crepis japonica, 34, 159
Crescentia cujete, 22, 158
Crotalaria incana, 9, 162
 — *retusa*, 162
 — *verrucosa*, 162
Croton glabellus, 160
 — *humilis*, 160
 — *linearis*, 25, 160
 — *lucidus*, 22, 160
 — *wilsoni*, 160
Cryptantha, 290
Ctenitis effusa, 153
Cucumis anguria, 160
Cupania glabra, 11–14, 16–18, 24–26, 167
Cuphea parsonsia, 163
Cyathea, 31
Cynoglossum coelestinum, 283
Cyperus filiformis, 154
 — *ligularis*, 154
 Cytotaxonomy of *Potentilla fruticosa*,
 Allied Species and Cultivars, 381
Daphnopsis americana, 11–14, 17, 18, 168
Dendropanax arboreum, 11, 12, 16, 157
Dendrophylax funalis, 156
Dennstaedtia cicutaria, 153
Desmodium axillare acutifolium, 9, 162
 — *canum*, 9, 162
 — *scorpiurus*, 162
 — *tortuosum*, 162
Diasperus acuminatus, 365
 — *berteroanus*, 190
 — *carnosulus*, 172
 — *diffusus*, 315
 — *distichus*, 66
 — *emblica*, 77
 — *junceus*, 343
 — *micranthus*, 326
 — *niruri*, 300
 — *orbiculatus*, 371
 — *pseudocicca*, 62
 — *pulcher*, 360
 — *tenellus*, 52
 — *tenuicaulis*, 178
 — *urinaria*, 196
Dichelactina, 76
Dichondra repens, 160
Dichromena ciliata, 9, 154
Dicliptera assurgens, 157
Dicranopteris, 31
Digitaria decumbens, 35, 38, 155
 — *sanguinalis*, 22, 155
Dioscorea alata, 155
 — *polygonoides*, 155
Diospyros tetrasperma, 25, 26, 160
Dipholis nigra, 10–12, 14, 15, 167
 — *salicifolia*, 11, 15, 24–26, 167
 Director's Report, The. The Arnold Ar-
 boretum during the Fiscal Year Ended
 June 30, 1957, 389
Dodonaea viscosa, 167
Drymaria cordata, 9, 159
Drypetes alba, 160
 — *lateriflora*, 11, 160
 Echiochilon and Related Genera. Studies
 in the Boraginaceae, XXIX, 255

- Echiochilon*, 256, 261–269
 — *adenophorum*, 269, 276–277
 — *albidum*, 270, 285–286
 — *arabicum*, 271, 289–290
 — *arenarium*, 270, 280–282
 — *chazaliei*, 261, 269, 274–275
 — *collenettei*, 269, 277–278
 — *fruticosum*, 261, 269, 278–279
 — — *marginatum*, 278
 — — *sieberi*, 279–280
 — *jugatum*, 270, 282–283
 — *kotschyi*, 270, 283–284
 — *lithospermoides*, 269, 272–274
 — *longiflorum*, 269, 271–272
 — *nubicum*, 271, 290–291
 — *persicum*, 270, 288–289
 — *somalense*, 271
 — *strigosum*, 270, 282, 286–288
 — *thesigeri*, 271, 292–293
 — *vatkei*, 270, 284–285
 — *verrucosum*, 271, 291–292
Echiochilopsis, 261
 — *coerulea*, 274
Echites umbellata, 157
Echium, 264, 265
Eclipta alba, 159
Ehretia tinifolia, 158
Elaeodendron dioecum, 11, 159
Elephantopus mollis, 9, 159
Eleusine indica, 9, 22, 155
Eleutheranthera ruderalis, 159
Elleanthus longibracteatus, 156
Emblica, 76
 — *arborea*, 77
 — *grandis*, 77
 — *officinalis*, 76, 77
Emilia sagittata, 9, 159
 — *sonchifolia*, 9, 159
Engelhardtia mexicana, 130
 — *orizabensis*, 130
Ephedra, 116
Epidendrum anceps, 156
 — *difforme*, 156
 — *diffusum*, 156
 — *fragrans*, 156
 — *nutans obtusifolium*, 156
 — *polybulbon*, 156
Epistylum sect. *Eriococcus*, 360
Eragrostis ciliaris, 155
Erechtites hieracifolia, 159
Erigeron canadensis, 159
Eriococcus, 359, 360
 — *gracilis*, 360
Erithalis quadrangularis, 11, 166
Eryngium foetidum, 9, 168
Erythroxylum areolatum, 160
 — *confusum*, 25, 160
Erythroxylum incrassatum, 11, 160
 — *rotundifolium*, 160
Esenbeckia pentaphylla, 11, 26, 167
Eugenia axillaris, 9, 18, 164
 — *biflora*, 164
 — *disticha*, 11, 18, 164
 — *eperforata*, 11, 164
 — *isosticta*, 164
 — *monticola*, 164
 — *sp.*, 16, 25
Eupatorium dalea, 159
 — *macrophyllum*, 18, 159
 — *odoratum*, 9, 19, 22, 23, 159
 — *parviflorum*, 159
 — *villosum*, 10, 18, 159
Euphorbia geniculata, 160
 — *heterophylla*, 9, 160
 — *hirta*, 9
 — — *hirta*, 160
 — — *procumbens*, 161
 — *hypericifolia*, 161
 — *hyssopifolia*, 9, 161
 — *punicea*, 13, 14, 161
Exioxylon, 261
Exostema caribaeum, 166
Exothea paniculata, 14, 25, 26, 167

 FAHN, ABRAHAM and I. W. BAILEY. The
 Nodal Anatomy and the Primary Vas-
 cular Cylinder of the Calycanthaceae,
 107
Ficus harrisii, 11, 164
 — *ochroleuca*, 11, 164
 — *populnea*, 164
 — *suffocans*, 34, 164
 — *wilsoni*, 11, 164
Fimbristylis annua, 154
Finschia, 31
Flemingia strobilifera, 162
Forsteronia floribunda, 157
Fruticulus capsularis, hexapetalis, 313

Galactia pendula, 162
 — *striata*, 162
Galeandra beyrichii, 156
Gesneria acaulis, 161
Ginkgo biloba, 116
Gleichenia, 31
Glochidion, 60
Gnetales, 377
Gnetum, 244
Gossypium hirsutum, 163
Gouania lupuloides, 166
Govenia utriculata, 156
Guaibara, 82, 212
 — *laurifolia*, 100, 232
 — *uvifera*, 87, 232

- Guarea glabra*, 11, 13, 17, 18, 24, 164
Guazuma ulmifolia, 22, 168
Guettarda argentea, 11, 13, 16, 18, 166
— *elliptica*, 166
Guzmania lingulata, 154
— *monostachya*, 16, 154
Gymnanthes lucida, 25, 26, 161

Habenaria alata, 156
— *quinqueseta*, 156
Haematoxylon campechianum, 22, 25, 26, 35, 162
Hamelia chrysantha, 25, 166
— *cuprea*, 166
— *patens*, 18, 166
— *ventricosa*, 11, 166
Helicia, 31
Helicteres jamaicensis, 168
Heliotropium, 267, 281
— *albo-hispidum*, 291
— *angiospermum*, 158
— *arenarium*, 280
— *calcareum*, 284
— *deflersii*, 286
— *fruticosum persicum*, 288
— *hirsutissimum*, 158
— *persicum*, 288
— *thymoides* var., 284
— *vatkei*, 284
Hibiscus clypeatus, 163
— *elatus*, 35–38, 163
Hillia tetrandra, 166
Hohenbergia polycephala, 154
— sp., 16
— *spinulosa*, 154
HOWARD, RICHARD A. The Director's Report. The Arnold Arboretum during the Fiscal Year Ended June 30, 1957, 389
HOWARD, RICHARD A. Studies in the Genus *Coccoloba*, III. The Jamaican Species, 81
HOWARD, RICHARD A. Studies in the Genus *Coccoloba*, IV. The Species from Puerto Rico and the Virgin Islands and from the Bahama Islands, 211
HOWARD, RICHARD A. and GEORGE R. PROCTOR. The Vegetation on Bauxitic Soils in Jamaica, 1; II, 151
Hydrangea, 29
Hydrocotyle asiatica, 9, 168
Hypelate trifoliata, 167
Hyperbaena domingensis, 24, 164
— *laurifolia*, 11, 13, 164
Hypoxis decumbens, 154
Hyptis capitata, 9, 161
— *pectinata*, 22, 23, 161

Ichnanthus pallens, 155
Ilex uniflora, 157
Indigofera suffruticosa, 9, 22, 162
Ionopsis utricularioides, 156
Ipomoea cathartica, 9, 33, 34, 39, 160
— *dissecta*, 160
— *grisebachii*, 19, 160
— sp., 16
— *ternata*, 160
— *tiliacea*, 9, 33, 39, 160
— *triloba*, 160
Iresine paniculata, 157

Jacquemontia jamaicensis, 160
Jacquinella globosa, 156
Jamaica, The Vegetation on Bauxitic Soils in, 1; II, 151
Jamaican Species, The. Studies in the Genus *Coccoloba*, III, 81
Jatha-Aembula, 309
JOHNSTON, IVAN M. Studies in the Boraginaceae, XXIX. *Echiochilon* and Related Genera, 255
Juglans in Mexico and Central America, The Genus, 121
Juglans arizonica, 137, 149
— *australis*, 149
— *boliviana*, 146, 149
— *californica*, 121, 149
— *cinerea*, 121, 122, 149
— *columbiensis*, 149
— *elaeopyren*, 136, 149
— *glabrata*, 122, 140
— *guatemalensis*, 122, 144
— *hindsii*, 121
— *hirsuta*, 127, 130–133, 149
— *major*, 127, 136–138, 149
— — *glabrata*, 127, 140–143, 149
— — *stellata*, 138–140
— — *stewartii*, 144
— *mexicana*, 131, 133
— *microcarpa*, 127, 142, 143–144, 149
— — *major*, 137
— — *stewartii*, 144
— *mollis*, 127, 131, 133–136, 149
— *nana*, 143
— *neomexicana*, 137, 149
— *neotropica*, 149
— *nigra*, 121, 149
— *olanchana*, 127, 144–147, 149
— — *standleyi*, 128, 147–148, 149
— *peruviana*, 146
— *pyriformis*, 127, 128–130, 140, 149
— *regia*, 123
— *rupestris*, 121, 143, 149
— — *major*, 136
— *steyermarkii*, 127, 148–149

- Juglans subrupestris*, 143, 149
 — *torreyi*, 137, 149

Kallstroemia maxima, 169
Kirganeli, 309
Kirganelia, 51, 56
 — sect. *Anisonema*, 56
 — sect. *Anisonemopsis*, 56
 — sect. *Eukirganelia*, 56
 KOBUSKI, CLARENCE E. Studies in the Theaceae, XXIX. Further Studies in the Genus *Melchiora*, 199
Krugiodendron ferreum, 25, 166

Lactuca jamaicensis, 34, 159
Laetia thamnina, 11, 161
Lagascea mollis, 159
Lantana angustifolia, 169
 — *camara*, 10, 22, 23, 169
 — *reticulata*, 169
 — *trifolia*, 10, 169
Lasiacis divaricata, 155
 — *sloanei*, 155
 — *sorghoidea*, 155
Lasianthus, 31
Leonurus sibiricus, 161
Lepidium virginicum, 160
Leptochloa domingensis, 155
Leucaena glauca, 24, 162
Leurocline, 261
 — *chazaliei*, 274
 — *lithospermoides*, 261, 273
 — *mauritanica*, 274
 — *somalensis*, 271
Liparis elata, 156
Lithospermum, 281
 — *chazaliei*, 274
 — *divaricatum*, 279
 — *kotschyi*, 283
 — — *brevifolia*, 288
 — *persicum*, 288
Lobelia viridiflora, 9, 163
Lobostemon lithospermoides, 273
 — *somalensis*, 271
Lomariopsis underwoodii, 153
Lonchocarpus domingensis, 24, 25, 162
 — *sp.*, 16
Lonicera amoena rosea, 393
Lycopodium linifolium, 153

Malaxis spicata, 156
Malpighia glabra, 163
 — *urens*, 163
Malus 'Henrietta Crosby,' 393
 — 'Henry F. du Pont,' 393
 — *indica* . . . *striato*, 66
 — 'Mary Potter,' 393

Malvastrum spicatum, 163
Malvaviscus arboreus, 16, 163
Mandevilla torosa, 157
Mangifera indica, 157
Manihot utilissima, 161
Manilkara zapotilla, 167
 MANNING, WAYNE E. The Genus *Juglans* in Mexico and Central America, 121
Margaritaria hotteana, 66
 — *nobilis*, 66
 — *scandens*, 66
 — *tetracocca*, 66
Mascagnia hiraea, 163
Maxonia apiifolia, 153
Maytenus jamaicensis, 11, 159
Megastoma, 255, 256–257
 — *pusillum*, 256, 257–258
Melanthera aspera, 159
Melchiora, Further Studies in the Genus. Studies in the Theaceae, XXIX, 199
Melchiora intermedia, 203
 — *mannii*, 199
 — *schliebenii*, 201, 202
 — — *glabra*, 203–204
 — — *greenwayi*, 204
 — — *intermedia*, 203
 — — *schliebenii*, 202
Melia composita, 36, 164
Melinis minutiflora, 35, 155
Melochia pyramidata, 22, 168
Metastelma ephedroides, 157
 — *filiforme*, 157
Metopium brownei, 25, 26, 157
 Mexico and Central America, The Genus *Juglans* in, 121
Miconia laevigata, 18, 163
Mikania cordifolia, 159
 — *micrantha*, 9, 33, 159
Mimosa pudica, 9, 34, 162
Moeroris stipulata, 315
Momordica charantia, 160
 Monographic Study of the West Indian Species of *Phyllanthus*, A, 51, 170, 295
Moralon, 229
Morinda, 31
Muntingia calabura, 168
Musa sapientum, 35, 156
Myristica fragrans, 164
Myrobalanus emblica, 77

Nectandra antillana, 11–18, 161
 — *coriacea*, 24, 161
 — *patens*, 11, 16, 161
Neli-pouli, 66
Nephrolepis biserrata, 9, 153
 — *exaltata*, 9, 153
Nili-camarum, 77

- Niruri barbadense . . . brevissimis, 300
 Nodal Anatomy and the Primary Vascular
 Cylinder of the Calycanthaceae, The,
 107
 Nogal, 121
 Nogal de Uriqui, 141
 Nogal encarcelado, 131, 132, 134
 Nogal silvestre, 137
 Nogalillo, 128, 143
 Notoptera hirsuta, 19, 159
 Nuez, 128, 145
 Nuez encarcelado, 128
 Nuez meca, 134

 Ochroma pyramidale, 34, 38, 158
 Ocimum micranthum, 161
 Ocotea floribunda, 16, 17, 162
 — staminea, 11, 12, 18, 24, 26, 162
 Oldenlandia, 31
 Omphalea triandra, 14, 15, 24, 161
 Oncidium luridum, 156
 — tetrapetalum, 156
 — triquetrum, 156
 Ophioglossum palmatum, 153
 Oreopanax capitatum, 11–17, 26, 157
 Ortigon, 227
 Oryctanthus occidentalis, 163
 Ossaea microphylla, 163
 Oxalis corniculata, 165
 — martiana, 165

 Palicourea domingensis, 11, 166
 Paltonium lanceolatum, 153
 Panicum adspersum, 22, 155
 — maximum, 35, 37, 155
 — purpurascens, 35, 37, 155
 Parthenium hysterophorus, 159
 Paspalum blodgettii, 9, 155
 — caespitosum, 22, 155
 — conjugatum, 9, 155
 — fimbriatum, 22, 155
 — notatum, 9, 155
 — paniculatum, 9, 155
 — propinquum, 22, 155
 Passiflora foetida hispida, 9, 165
 — perfoliata, 165
 — rubra, 165
 — suberosa, 9, 165
 Paullinia jamaicensis, 18, 167
 Pavonia rosea, 163
 — spinifex, 9, 163
 Pedilanthus tithymaloides, 161
 Peltophorum brasiliense, 11, 162
 Pennisetum purpureum, 22, 155
 Peperomia amplexicaulis, 16, 165
 — clusiaefolia, 165
 — glabella, 165
 — Peperomia rotundifolia, 165
 — serpens, 165
 Persea americana, 38, 162
 Petitia domingensis, 10, 11, 34, 38, 169
 Pharus glaber, 155
 Phaseolus lathyroides, 9, 162
 Philodendron lacerum, 154
 Phoradendron latifolium, 163
 Phyla nodiflora, 9, 169
 — stoechadifolia, 169
 Phyllanthus, A Monographic Study of
 the West Indian Species of, 51, 170, 295
 Phyllanthus sect. Anisonema, 51, 56–57
 — sect. Apolepis, 363, 371
 — sect. Aporosella, 61, 72
 — sect. Callitrichoides, 170, 171–172
 — sect. Chorisandra, 52
 — sect. Cicca, 61, 65–66
 — sect. Ciccopsis, 61–62
 — sect. Cyclanthera, 171, 177–178
 — sect. Elutanthos, 364
 — sect. Emblica, 61, 75–76
 — sect. Emblicastrum, 359
 — sect. Eriococcodes, 359
 — sect. Eriococcus, 296, 360
 — sect. Euphyllanthus, 170, 295
 — sect. Floribundi, 51–52
 — sect. Flueggeopsis, 57
 — sect. Hemiphyllanthus, 360
 — sect. Kirganelia, 51, 56
 — sect. Loxopodium, 171
 — sect. Menarda, 52
 — sect. Nothoclema, 363–364
 — sect. Omphacodes, 61
 — sect. Orbicularia, 324
 — sect. Paraphyllanthus, 76
 — sect. Phyllanthus, 51, 171, 295–299
 — sect. Scepasma, 359
 — sect. Typophyllanthus, 56, 65
 — sect. Urinaria, 171, 192–194
 — subg. Cicca, 60–61
 — subg. Conami, 363
 — subg. Eriococcus, 359–360
 — subg. Kirganelia, 51
 — subg. Phyllanthus, 170–171
 — subg. Xylophylla, 61
 — subsect. Cheramela, 65
 — subsect. Ciccoides, 65
 — subsect. Eucicca, 65
 — subsect. Kirganelia, 56
 — subsect. Margaritaria, 65
 — subsect. Niruri, 297, 299–300
 — subsect. Pentaphylli, 298, 324–326
 — subsect. Prosorus, 65
 — subsect. Swartziani, 297, 306–307
 — abditus, 178, 188–190
 — abnormis, 315

- Phyllanthus acidissimus*, 66
 — *acidus*, 65, 66–72
 — *acuminatus*, 364–368
 — *alatus*, 194
 — *amarus*, 297, 306, 313–315
 — — *scabrellus*, 310
 — *amnicola*, 298, 336–337
 — *anisophyllus*, 190
 — *aquaticus*, 315
 — *arenarius*, 194
 — *asperulatus*, 311
 — *benguensis*, 194
 — *berteroanus*, 178, 190–192
 — *brachyphyllus*, 298, 331–333
 — *brasiliensis*, 363, 365
 — — *oblongifolius*, 368
 — *brevistipulus*, 62
 — *buchii*, 298, 333–336
 — *cantoniensis*, 194
 — *capillaris*, 55
 — *caribaeus*, 298, 306, 318–320
 — *carnosulus*, 171, 172–177
 — *caroliniensis*, 318
 — *casticum*, 57
 — *chacoensis*, 72, 75
 — *chamaepeuce*, 196
 — *cicca*, 66
 — — *bracteosus*, 66
 — *claussenii*, 373
 — *columnaris*, 76
 — *conami*, 365, 368
 — *corcovadensis*, 52
 — *coxianus*, 11, 17, 161
 — *croizatii*, 194
 — *cryptophilus*, 52
 — *cyclanthera*, 180
 — — *gracillimus*, 183
 — — *lindenianus*, 183
 — — *scabrellus*, 183
 — *debilis*, 297, 306, 307–309
 — *diffusus*, 315
 — — *genuinus*, 315
 — *dimorphus*, 299, 341–342
 — *discolor*, 64
 — *distichus*, 66
 — — *nodiflorus*, 66
 — *echinospermus*, 299, 353–355
 — *elsiae*, 73–75
 — *emblica*, 76–79, 363
 — *fadyenii*, 298, 306, 323–324
 — *floribundus*, 52
 — . . . *floribus* . . . *procumbente*, 194
 — *foliis* . . . *baccato*, 77
 — *foliis* . . . *pinnatis*, 300
 — *fraternus*, 297, 306, 309–312
 — *fuertesii*, 298, 328–331
 — *gracilipes*, 360
 — *Phyllanthus gracilissimus*, 183
 — *haplocladus*, 172
 — *heliotropus*, 171
 — *hoffmannseggii*, 315
 — *hookeri*, 194
 — *hotteanus*, 66
 — *hyssopifolioides*, 171
 — *imbricatus*, 299, 358–359
 — *inaequaliflorus*, 11, 161
 — *inaequifolius*, 187
 — *jamaicensis*, 57
 — *junceus*, 299, 342–344
 — *lacunarius*, 296
 — *lathyroides commutatus*, 300
 — *lawii*, 76
 — *leonardorum*, 186
 — *leonis*, 65
 — *lepidocarpus*, 194
 — *leprocarpus*, 194
 — *leptoneurus*, 299, 339–341
 — *lindenianus*, 177, 178, 180–183
 — — *inaequifolius*, 183, 187–188
 — — *jimenezii*, 183, 185
 — — *leonardorum*, 182, 186–187
 — — *lindenianus*, 183–185
 — *longifolius*, 66
 — *maestrensis*, 299, 337–339
 — *micranthus*, 298, 326–328
 — — *fuertesii*, 328
 — *microphyllus*, 318
 — *mimicus*, 297, 303–306
 — *minimus*, 353
 — *minor*, 53
 — *minutulus*, 318
 — *montanus*, 161
 — *muelleranus*, 52
 — *nanus*, 313, 358
 — *nigericus*, 318
 — *niruri*, 295, 297, 300–303, 309, 313, 315
 — — *debilis*, 307
 — — *genuinus*, 313, 315
 — — *javanicus*, 307
 — — *lathyroides*, 302
 — — *niruri*, 300–303
 — — *radicans*, 347
 — — *scabrellus*, 309
 — *nobilis*, 66
 — *nummulariaefolius*, 53, 371
 — *nutans*, 25, 161
 — *orbicularis*, 323
 — *orbiculatus*, 371–373
 — — *genuinus*, 371
 — *pentaphyllus*, 299, 309, 324, 344–347
 — — *pentaphyllus*, 347–350
 — — — *floridanus*, 348
 — — — *pentaphyllus*, 348
 — — *polycladus*, 347, 350–351

- Phyllanthus physocarpus*, 57
 — *pinnatus*, 52
 — *pinosius*, 356
 — *poiretianus*, 371
 — *polycladus*, 350
 — — *curassavicus*, 347
 — — *guadeloupensis*, 350
 — *polypkyllus*, 76
 — *porifolius*, 79
 — *procerus*, 298, 320–323
 — *pruinosis subnudus*, 343
 — *pseudocicca*, 61, 62–65
 — *pulcher*, 360–363
 — *pulverulentus*, 299, 351–353
 — *punctulatus*, 62
 — *radicans*, 347
 — *reticulatus*, 56, 57–60
 — — *glaber*, 59
 — *rotundifolius*, 308
 — *scabrellus*, 309
 — *scandens*, 66
 — *selbyi*, 299, 355–358
 — *societatis*, 194
 — *squamatus*, 343
 — *stipulatus*, 297, 306, 315–318
 — — *oblongifolius*, 318
 — *subcarnosus*, 61
 — *submarginatus*, 373
 — *subglomeratus*, 364, 368–371
 — *swartzii*, 306, 313
 — *tenellus*, 52–56
 — — *roxburghii*, 54
 — — *tenellus*, 54
 — *tenuicaulis*, 178–179
 — — *haitensis*, 180
 — — *tenuicaulis*, 180
 — *trigonus*, 339
 — *urinaria*, 194–198, 313
 — *virens*, 66
 — *wightianus*, 52
Phyllogonium fulgens, 176
Physalis pubescens, 9, 167
Phytolacca icosandra, 165
Picramnia antidesma, 11, 25, 26, 167
 — *pentandra*, 167
Picrasma excelsa, 167
Pilea brevistipula, 168
 — *crassifolia*, 18, 168
 — *hollickii*, 168
 — *microphylla*, 169
Pimenta dioica, 10, 11, 35, 164
Pinus caribaea, 38
Piper aduncum, 165
 — *amalago*, 165
 — *arboresum*, 18, 165
 — *jamaicense*, 16, 18, 165
 — *umbellatum*, 165
Piriqueta cistoides, 168
Piscidia piscipula, 16, 24, 26, 162
Pisonia aculeata, 25, 164
 — *discolor*, 164
Pithecellobium alexandri, 162
 — *arboresum*, 11–15, 18, 162
Pityrogramma calomelanos, 153
Pleurothallis tribuloides, 156
Pluchea odorata, 159
Plumbago scandens, 165
Plumeria obtusa, 157
Polygala paniculata, 9, 165
Polygonum glabrum, 165
 — *uvifera*, 87, 231
Polypodium angustifolium, 153
 — *astrolepis*, 153
 — *aureum*, 153
 — *crassifolium*, 153
 — *heterophyllum*, 153
 — *lycopodioides*, 153
 — *pectinatum*, 153
 — *phyllitidis*, 153
 — — *latum*, 153
 — *piloselloides*, 153
 — *plumula*, 16, 153
 — *polypodioides*, 16, 153
Polystachya foliosa, 156
Polystichum christinae, 153
 — *echinatum*, 153
Ponthieva ventricosa, 156
Porophyllum ellipticum, 159
Portlandia grandiflora, 25, 166
 — *microsepala*, 166
 Potentialities and Limitations of Wood
 Anatomy in the Study of the Phylogeny
 and Classification of Angiosperms, The,
 243
Potentilla fruticosa, Allied Species and
 Cultivars, Cytotaxonomy of, 381
Potentilla arbuscula, 384
 — — *albicans*, 386
 — — 'Snowflake,' 386
 — — *var.*, 386
 — — *veitchii*, 386
 — *davurica*, 384, 387
 — — *beesii*, 386
 — — 'Lady Daresbury's form,' 387
 — — 'Nyewoods form,' 387
 — *friedrichsenii leucantha*, 387
 — × *friedrichsenii*, 387
 — *fruticosa*, 381, 382, 387
 — — *alba*, 384
 — — *arbuscula*, 386
 — — 'Friesengold,' 387
 — — *grandiflora*, 381
 — — *micranda*, 381
 — — *pyrenaica*, 387

- Potentilla fruticosa veitchii*, 387
 — — $\times$ *P. glabra*, 387
 — *glabra*, 384
 — — *kansu*, 384
 — — *mandshurica*, 384
 — — *rhodocalyx*, 384
 — — $\times$ *P. parvifolia*, 384
 — 'Katherine Dykes,' 387
 — *parvifolia*, 383
 — — 'Gold Drop,' 383
 — — 'Woodland Gold,' 384
 — — $\times$ *P. glabra mandshurica*, 387
 — $\times$ *rehderiana*, 387
 — *rigida*, 386
 — *sulphurescens vilmoriniana*, 386
Pouteria multiflora, 11, 13–16, 167
Priva lappulacea, 9, 169
 PROCTOR, GEORGE R. and RICHARD A. HOWARD. The Vegetation on Bauxitic Soils in Jamaica, I; II, 151
Prunus myrtifolia, 166
Pseudelephantopus spicatus, 159
Pseudotsuga menziesii, 246
Pseudowintera, 248
Psidium guajava, 10, 22, 164
Psilotum nudum, 153
Psychotria balbisiana, 166
 — *dura*, 166
 — *fadyenii*, 166
 — *myrstiphyllum*, 25, 166
 — *nervosa*, 10, 166
 — *patens*, 166
 — *pedunculata*, 10, 166
 — *pubescens*, 10, 166
 — *sp.*, 18
Pteridium, 244, 377
 — *caudatum*, 153
Pteris grandifolia, 153
 — *longifolia*, 9, 34, 153
Pueraria lobata, 38, 162
 Puerto Rico and the Virgin Islands and from the Bahama Islands, The Species from. Studies in the Genus *Coccoloba*, IV, 211

Quintinia sieberi, 30

Rapanea guianensis, 164
Rauvolfia tetraphylla, 157
Reidia, 360
Rhamnus sphaerosperma, 11, 14, 17, 18, 166
Rheedia sessiliflora, 11, 161
Rhipsalis cassytha, 16, 158
 — *jamaicensis*, 158
Rhododendron, 28
Rhynchosia minima, 162

Rhynchosia phaseoloides, 162
Rhynchospora pusilla, 154
Rhytidophyllum tomentosum, 9, 16, 18, 161
Richardia brasiliensis, 166
Ricinus communis, 35, 161
Rivina humilis, 165
Robinia pseudoacacia, 246
Rondeletia polita, 166
 — *trifolia*, 167
Rourea paucifoliata, 19, 160
Rubus jamaicensis, 9, 166

Salmea scandens, 159
Salpixinantha coccinea, 11, 18, 157
Salvia coccinea, 161
 — *micrantha*, 9, 161
Sarcandra, 376
Sarcomphalus laurinus, 24, 26, 166
Sauropus, 72
Schaefferia frutescens, 25, 159
Schlegelia parasitica, 19, 158
Schoepfia multiflora, 165
Schomburgkia lyonsii, 156
Schradera involucrata, 167
Scleria lithosperma, 154
 — *pteroa*, 154
Scorteia arbor . . . refertis, 227
Scybalium jamaicense, 158
 Sea Grape, 88, 217
 Seaside Grape, 88
Securidaca brownei, 165
Selaginella, 244, 377
Sericostoma, 255, 256, 258–259
 — *albidum*, 285
 — *arenarium*, 280
 — *calcareum*, 284
 — *kotschyi*, 283
 — *parviflorum*, 259
 — *pauciflorum*, 258, 259–261
 — *persicum*, 288
 — *strigosa*, 286
 — *verrucosum*, 291
Setaria geniculata, 9, 22, 155
Sida acuta, 163
 — *cordifolia*, 163
 — *glabra*, 163
 — *rhombifolia*, 9, 163
 — *spinosa*, 163
 — *urens*, 9, 163
Simaruba glauca, 11, 12, 25, 26, 167
Sloanea jamaicensis, 11, 12, 160
Smilax balbisiana, 156
Solandra grandiflora, 19, 167
Solanum bahamensis subarmata, 168
 — *ciliatum*, 168
 — *havanense*, 168

- Solanum jamaicense*, 168
 — *mammosum*, 9, 168
 — *nigrum*, 9, 168
 — *spp.*, 40
 — *stellatum*, 9, 168
 — *torvum*, 9, 168
 — *verbascifolium*, 9, 22, 23, 168
Sonchus oleraceus, 159
Sophora tomentosa, 162
Sorghum bicolor, 155
Spathelia sorbifolia, 25, 167
Spathodia nilotica, 158
Spigelia anthelmia, 163
Spiranthes adnata, 156
 — *tortilis*, 156
Spondias purpurea, 157
Sporobolus indicus, 22, 155
Stachytarpheta cayennensis, 169
 — *jamaicensis*, 9, 169
 Staff of the Arnold Arboretum 1956–1957, 404
Staurothylax, 65
Stenotaphrum secundatum, 9, 34, 155
Stigmaphyllon emarginatum, 163
 Studies in the Boraginaceae, XXIX.
 Echiochilon and Related Genera, 255
 Studies in the Genus *Coccoloba*, III. The Jamaican Species, 81; IV. The Species from Puerto Rico and the Virgin Islands and from the Bahama Islands, 211
 Studies in the Theaceae, XXIX. Further Studies in the Genus *Melchiora*, 199
Stylosanthes hamata, 162
Swietenia mahagoni, 36, 38, 164
Symplocos, 30
Synedrella nodiflora, 159
Syngonium auritum, 26, 154
Syringa × *swegiflexa*, 393

Tabebuia angustata, 25, 158
 — *riparia*, 25, 158
Talinum triangulare, 166
Tamarindus indicus, 162
Tecoma stans, 158
Tectaria apiifolia, 153
 — *heracleifolia*, 153
Tectona grandis, 36, 169
Terminalia latifolia, 10, 11, 14, 15, 34, 38, 159
Ternstroemia hartii, 168
Tetracentron, 247, 376
Tetraedrocarpus, 261
 — *arabicus*, 261, 289
Tetrazygia hispida, 11, 18, 163
 — *pallens*, 11, 163
Teucrium vesicarium, 161

 Theaceae, Studies in the, XXIX. Further Studies in the Genus *Melchiora*, 199
Thelypteris asterothrix, 153
 — *guadalupensis*, 153
 — *normalis*, 153
 — *oligophylla*, 153
 — *reptans*, 153
 — *serra*, 153
 — *serrulata*, 153
 — *tetragona*, 154
Theobroma cacao, 168
Thrinax jamaicensis, 15
 — *parviflora*, 156
 — *sp.*, 24, 25, 156
Thuidium urceolatum, 176
Thunbergia alata, 9, 157
 — *fragrans*, 157
Tillandsia balbisiana, 26, 154
 — *compressa*, 154
 — *festucoides*, 154
 — *flexuosa*, 154
 — *recurvata*, 26, 154
 — *schiedeana*, 154
 — *tenuifolia*, 16, 154
 — *usenoides*, 154
 — *utriculata*, 154
 — *valenzuelana*, 16, 154
Torrubia fragrans, 11–15, 17, 18, 164
Tournefortia hirsutissima, 10, 158
 — *volubilis*, 158
Tradescantia multiflora, 154
Tragia volubilis, 161
 Tribble Grape, 215
Tricarum, 65
Trichachne insularis, 22, 155
Trichilia glabra, 164
 — *moschata*, 164
Trichostigma octandrum, 165
Trichostomum jamaicense, 176
Trimenia, 112, 115
Trimezia martinicensis, 9, 156
Triumfetta hispida, 9, 168
 — *lappula*, 9, 22, 168
Trochodendron, 247, 376
Trophis racemosa, 164

Urechites lutea, 9, 22, 157
Urena lobata, 9, 163
Urera baccifera, 12
 — *expansa*, 169
Urinaria erecta, 300
 — *Indica . . . rubentibus*, 194
Uvifera plumieri, 84
 — *swartzii*, 89, 222

Vaccinium, 28

- Vegetation on Bauxitic Soils in Jamaica,
The, 1; II, 151
Verbesina alata, 9, 159
— *pinnatifida*, 159
Vernonia acuminata, 19, 159
— *cinerea*, 19, 159
Vesselless Dicotyledon, *Amborella tri-*
chopoda Baill., Additional Notes on
the, 374
Viburnum alpinum, 158
— *villosum*, 11, 18, 158
Virgin Islands and from the Bahama
Islands, The Species from Puerto Rico
and the. Studies in the Genus
Coccoloba, IV, 211
Vittaria lineata, 154

Wallenia grisebachii, 164
— *laurifolia*, 11, 13, 18, 24, 26, 164
Waltheria americana, 22, 168
WEBSTER, GRADY L. A Monographic
Study of the West Indian Species of
Phyllanthus, 51, 170, 295
Wedelia fragilis, 34
— *gracilis*, 9, 159
West Indian Species of *Phyllanthus*, A
Monographic Study of the, 51, 170,
295
White Grape, 217
White Wood, 217
Wild Grape, 85, 90, 94, 97
Winteraceae, 376
Wissadula amplissima, 22, 163
— *fadyenii*, 163
Wolffia columbiana, 156
Wood Anatomy in the Study of the
Phylogeny and Classification of Angio-
sperms, The Potentialities and Limita-
tions of, 243
Wurtzia tetracocca, 66

Xylopia muricata, 11, 13, 14, 18, 157
Xylosma fawcettii, 11, 18, 161
— *sp.*, 25

Zanthoxylum elephantiasis, 11, 167
— *flavum*, 25, 26, 167
— *insulare*, 24, 25, 167
— *martinicense*, 11–14, 16–18, 22, 34, 167
Zea mays, 38, 155
Zebra Wood, 102
Zizyphus chloroxylon, 11, 12–16, 166



1957. "Index [vol. 38]." *Journal of the Arnold Arboretum* 38(4), 405–417.
<https://doi.org/10.5962/p.324657>.

View This Item Online: <https://www.biodiversitylibrary.org/item/33614>

DOI: <https://doi.org/10.5962/p.324657>

Permalink: <https://www.biodiversitylibrary.org/partpdf/324657>

Holding Institution

Missouri Botanical Garden, Peter H. Raven Library

Sponsored by

Missouri Botanical Garden

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Arnold Arboretum of Harvard University

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.