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D. W. Marble 76; hills north of Charlotte Amalia, 409; on the ground, Magin's Bay to Mafolie, 1312.

21. ANTHOCEROS PUNCTATUS L.

ST. THOMAS: in a mud hole, Crown, 450 m. alt., 1363.

REPORT ON THE LICHENS OF ST. THOMAS AND ST. JAN¹⁶

The following report is based primarily upon a study of 90 numbers of lichens from St. Thomas and St. Jan Islands; from St. Thomas, 82 numbers collected by Dr. N. L. Britton, Mrs. E. G. Britton, and Miss Delia W. Marble, unless otherwise stated; from St. John, 8 numbers collected by Dr. N. L. Britton and Dr. J. A. Shafer. To these have been added a few species recorded by Nylander in *Flora* (63: 127. 1880) and two endemic species described by Mueller-Argau. Altogether, we have represented 30 genera with 69 species and varieties, of which three species and one variety are here described as new. The discussion of the characteristics of the lichen-flora will be confined to that of St. Thomas.

There is no peculiar element in the lichen-flora of St. Thomas comparable with the gelatinous rock-lichens of Mona Island (see *Annals Missouri Bot. Gard.* 2: 35. 1915), or with the crustose and gelatinous rock-lichens of Bermuda (see *Bull. Torrey Bot. Club* 43: 146-155. 1916). Such rock-lichens as occur on St. Thomas belong to widely distributed groups even where the actual species are more restricted in distribution. In fact the greater part of the lichen-flora is made up of species more or less common throughout the West Indies or even in the tropics of both hemispheres. It is probably safe to say that there are not more than half a dozen endemic species in St. Thomas. Of the three new species described in this paper, two occur elsewhere in the West Indies. The flora is comparatively rich in the variety of crustose bark-lichens, especially in the genera *Anthracothecium* with 5 species, *Arthonia* with 8 species, and *Opegrapha* with 5 species. It is rather surprising that only one *Graphis* and no *Trypethelium* should have been collected. On the whole the lichen-flora is rather commonplace. In the following list, stations outside of the Virgin Islands are noted for species, the range of which is limited or not well known.

LICHENS OF ST. THOMAS

1. DERMATOCARPON HEPATICUM (Ach.) Th. Fr. On soil, without definite locality, 151.

¹⁶ Contributed by Lincoln W. Riddle, Wellesley College.

2. LEPTORAPHIS EPIDERMIDIS (Ach.) Th. Fr. On bark, Bordeaux, 1381.
3. PORINA DESQUAMESCENS Fée. Without data, 1288a.
4. PORINA NUCULA Ach. On *Erythrina*, St. Peter, 1444b, 1445.
5. PYRENULA LEUCOPLACA (Wallr.) Koerb. On bark, Smith's Bay, 1276a.
6. ANTHRACOTHECIUM BREUTELII Muell. Arg. Flora 68: 339. 1885.
On bark, without definite locality, collected by Breutel. Endemic.
7. ANTHRACOTHECIUM CANELLAE-ALBAE (Fée) Muell. Arg. On *Cephalocereus*, Smith's Bay, 1274a; on twigs of *Guettarda*, Crown, 450 m. altit., 1357. South America.
8. ANTHRACOTHECIUM LIBRICOLUM (Fée) Muell. Arg. On *Melicocca*, Tutu, 468a; on same, Smith's Bay, 1276, 1282; on *Erythrina*, St. Peter, 1444.
9. ANTHRACOTHECIUM OCHRACEOFLAVUM (Nyl.) Muell. Arg.
On bark of coconut palm, near Charlotte Amalia, 489; on *Trichilia*, Tutu, 467.
10. ANTHRACOTHECIUM PYRENULOIDES (Mont.) Muell. Arg. On bark, without definite locality, collected by Dr. Forel. Recorded by Nylander in Flora 63: 127. 1880.
11. MELANOITHECA FOVEOLATA Muell. Arg. On bark, near Tutu, 1287. Cuba.
12. PARATHELIUM INDUTUM Nyl. On *Cephalocereus*, Smith's Bay, 1274; on bark, Bordeaux, 1382 in part. Porto Rico, Colombia.
13. PARMENTARIA ASTROIDEA Fée. On bark, Bordeaux, 1382 in part.
14. ARTHONIA ANEGADENSIS Riddle Mem. New York Bot. Gard. 6: 579. 1916. On *Bontia*, Smith's Bay, 1286. Anegada.
15. ARTHONIA CONFERTA (Fée) Nyl. On *Plumeria*, Tutu, 1484.
16. ARTHONIA GREGARIA (Weig.) Koerb. On bark, Bordeaux, 1380.
17. ARTHONIA OCHRACEELLA Nyl. On bark of old fallen branch, Crown, 450 m. altit., 1362. Cuba.
18. ARTHONIA RUBELLA (Fée) Nyl. On *Melicocca*, Tutu, 468b.
19. ARTHONIA SUBRUBELLA Nyl. Collected by Dr. Forel. Recorded by Nylander in Flora 63: 127. 1880.
20. ARTHONIA.¹⁷ On *Guilandina*, Smith's Bay, 1281 p.p.
21. ARTHONIA. On *Plumeria*, Tutu, 463.
22. ARTHOTHELIUM MACROTHERCUM (Fée) Mass. On mango, St. Peter, 1247.
23. *Opegrapha acicularis* Riddle sp. nov.
Thallus epiphloeodes crustaceus effusus determinatus nigrolimitatus, albidus

¹⁷ There are included in this paper three species of *Arthonia* the determination of which it has not been possible to complete in the time at my disposal. L. W. R.

vel albo-cinerascens, tenuis laevis subcontinuus. Apothecia sessilia nuda ad 0.8 mm. lata, primum orbicularia suburceolata, margine crenato, dein orbicularia oblonga vel subdifformia, disco late aperto plano rugoso atrofusco, margine laciniato partim stellato-radiato nitido nigro; epithecio fusco; hymenio incolore, 120-130 μ altit.; hypothecio incolore; amphithecio sub lamina deficiente, cetero crasso nigro. Paraphyses firmae crassae ramosae haud connexae. Asci cylindrici, 8-sporei. Sporae incolores aciculares rectae vel subflexuosae vel rarius contortae, 20-24-loculares, cellulis cylindricis, 60-100 x 2-3 μ .

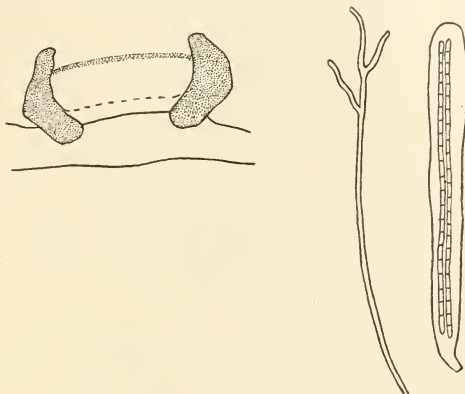


FIG. 1. *Opegapha acicularis* Riddle. Vertical section of apothecium (stippling indicates dark coloration); paraphysis; ascus with two of the eight spores.

On bark of *Erythroxylon*, Punta Aguila, Porto Rico, collected by N. L. Britton, J. F. Cowell, and Stewardson Brown, Feb. 27, 1915, no. 4682 (type!). Also, on *Guilandina*, Smith's Bay, St. Thomas, 1276a, 1279; and on *Coccolobis*, Great Harbor Cay, Berry Islands, Bahamas, N. L. Britton and C. F. Millspaugh, no. 2545.

This is a striking and distinct species belonging to the section *Pleurothecium* of the genus *Opegapha*. Externally it is easily recognizable by the marked tendency for the lacinate margin of the apothecia to spread out in a stellate manner. The spores resemble those of *Lecanactis myriadea* (Fée) Zahlbr. and of *Opegapha pleistophragmoides* Nyl. But both of the species named have the black amphithecium complete at the base, and the spores are almost twice as thick.

24. OPEGRAPHA AGELAEA Fée. On *Crescentia*, Tutu, 462. Cuba, Colombia.
25. OPEGRAPHA ATRA Pers. On *Guilandina*, Smith's Bay, 1278a; on *Melicocca*, Smith's Bay, 1285.

26. OPEGRAPHA BONPLANDI Fée. On *Melicocca*, Magen's Bay, 1310; on bark, Mariendahl Road, 1476.
27. OPEGRAPHA VULGATA Ach. On *Melicocca*, Tutu, 468.
28. GRAPHIS SCRIPTA (L.) Ach. On bark, Smith's Bay, 1277.
29. PHAEOGRAPHIS INUSTA (Ach.) Muell. Arg. On *Acacia*, near Charlotte Amalia, 486; on *Guilandina*, Smith's Bay, 1278; without locality, 464.
30. CHIODECTON (Sect. Enterographa) sp. On *Erythrina*, St. Peter, 1445a.
31. GYOSTOMUM SCYPHULIFERUM (Ach.) Fr. On *Plumeria*, Tutu, 465; on *Acacia*, near Charlotte Amalia, 487, 494.
32. BILIMBIA CUPREA Massal. in Lotos (1856) 77.
Lecidea cupreorosella Nyl. Mem. Soc. Sci. Nat. Cherb. 5: 122. 1857.
Biatora cupreorosella Tuck. Syn. N. A. Lich. 2: 34. 1888.
 On old brick, St. Peter, 1442. Eastern United States, Europe.
33. BACIDIA ALBESCENS (Arn.) Zwackn. On *Erythrina*, St. Peter, 1445b.
34. CLADONIA PITYREA f. SQUAMULIFERA Wainio. On rocks, slope of Crown, 1440.
35. LEPTOGIUM CHLOROMELUM (Sw.) Nyl. On bark, Cowell Point, 103, 172; on *Pisonia* roots, Water Island, 153.
36. LEPTOGIUM TREMELLOIDES (L. f.) S. F. Gray. On tree-trunk, Crown, 1361.
37. LEPTOGIUM TREMELLOIDES var. CAESIUM (Ach.) Hue. On rock near Bonne Resolution, 447.
38. LECANORA CINEREOCARNEA (Eschw.) Wainio. Without data, 23a; on *Guilandina*, Smith's Bay, 1281.
39. LECANORA GRANIFERA Ach. On bark, Mariendahl Road, 1476a.
40. ***Lecania euthallina* Riddle sp. nov.**

Thallus crustaceus uniformis effusus crassus rimoso-areolatus, areolis 0.2-0.4 mm. latis leviter convexis contiguis, cinereus vel sat pallide fuscescens; hypothallo nullo. Conidia cystococcoidea. Apothecia 0.6 mm. (0.4-1.0 mm.) lata, numerosa partim caespitosa superficialia sat elevata regularia, disco concavo castaneo vel fusco-nigricante nudo, margine proprio tenue disco concolore, margine thallico integro vel demum crenulato crasso prominente thallo concolore; epithecio fulvo; hymenio et hypothecio incolore. Asci 8-spori. Sporae incolores oblongae biloculares haud placodiomorphae, 10-12 x 4-5 μ .

On rock, Tutu, St. Thomas, collected by Dr. N. L. Britton, Mrs. E. G. Britton, and Miss Delia W. Marble, Feb. 8-9, 1913, no. 469 (type!).

Lecania euthallina differs from *L. erysibe* (Ach.) Th. Fr. in the much better developed thallus (whence the specific name), it being compact,

thicker, and more continuous. Furthermore, the apothecia are more concave, with the persistent thalline margin more conspicuous.

41. *PARMELIA CETRATA* f. *SUBSIDIOSA* Muell. Arg. On tree-trunk, Crown, 1441 in part. North Carolina, Florida, Cuba, Jamaica.
42. *PARMELIA CONSPERSA* (Ehrh.) Ach. On rocks, Crown, 450 m. altit., 1358.
43. *PARMELIA LATISSIMA* var. *CRISTIFERA* (Taylor) Hue. On tree-trunk, St. Peter, 1249; on twig, Crown, 1441 in part.
44. *PARMELIA PERLATA* (L.) Ach. On rocks, near Bonne Resolution, 446; on *Spondias*, Mandal, 1311.
45. *RAMALINA COMPLANATA* (Sw.) Ach. Without data, 1356a.
46. *RAMALINA GRACILIS* (Pers.) Nyl. On twigs of *Guettarda*, Crown, 450 m. altit., 1356.
47. ***Blastenia nigrocincta* Riddle sp. nov.**

Thallus crustaceus arcte adnatus sat crassus, ambitu subradiato-laciniatus effiguratusque, centro rimoso-areolatus, areolis 0.4-0.8 mm. latis leviter convexa primum contiguus demum hypothallo nigro dispersis, cinereo-albescens dein fumosus aut partim luridus. Apothecia 0.3-0.5 mm. lata, superficialia dispersa vel partim caespitosa nuda, disco plano vel leviter convexa ferrugineo-aurantiaco, margine proprio sat tenue persistente nigro nitido, margine thalino nullo; excipulo externe coeruleo-nigro interne incolore; epithecio ferrugineo; hymenio incolore; hypothecio pallide fusciscente. Asci 8-spori. Sporae incolores ellipsoideae biloculares placodiomorphae, loculis poro tenue confluentibus, 12-14 x 5-6 μ .

On rock, Tutu, St. Thomas, collected by Mrs. E. G. Britton and Miss Delia W. Marble, Feb. 8-9, 1913, no. 469a (**type!**). Also, on limestone, Montalva, Porto Rico, N. L. Britton, J. F. Cowell, and Stewardson Brown, March 2-4, 1915, no. 4810.

This species is distinct in the contrasting coloration of the black margin and the orange disk of the apothecia, a character which will serve to distinguish it on the one hand from species with similar thalline characters, such as *Bl. Forstroemiana* (Fr.) Muell. Arg.; and on the other hand from *Bl. ferruginea* (Huds.) Koerb., where the disk and margin are concolorous, and from *Blastenia peragrata* (Fée) Muell. Arg., where the margin is black, but the disk is aeruginous-brown.

48. ***Caloplaca diplacia* (Ach.) Riddle comb. nov.**

Lecanora Ach. Synop. Lich. 154. 1814.

On rock, near Charlotte Amalia, 493, 495, 1485 in part. Also recorded by Nylander in Flora 63: 127. 1880. Apparently confined to the West Indies.

49. ***CALOPLACA MURORUM* (Hoffm.) Th. Fr.** On rock, near Charlotte Amalia, 1485 in part.

50. **Caloplaca subsequestra** (Nyl.) Riddle **comb. nov.**
Lecanora Nyl. Flora **63**: 127. 1880.
 On rocks, without definite locality, collected by Dr. Forel. Endemic.
51. **BUELLIA DISCOLOR** (Hepp) Koerb. On rock, Tutu, 469b; without definite locality, collected by Dr. Forel, according to Nylander (l. c.). Europe.
52. **BUELLIA PARASEMA** var. **AERUGINESCENS** (Nyl.) Muell. Arg. On coconut near Charlotte Amalia, 489a.
53. **Buellia prospersa** (Nyl.) Riddle **comb. nov.**
Lecidia Nyl. Flora **63**: 127. 1880.
 On rocks, without definite locality, collected by Dr. Forel. Endemic.
54. **PYXINE COCOES** (Sw.) Nyl. On bark, near Bonne Resolution, 445; on *Melicocca*, Tutu, 466.
55. **PYXINE COCOES** var. **ENDOXANTHA** Muell. Arg. On *Guilandina*, Smith's Bay, 1280; on bark, Mariendahl Road, 1475.
56. **PYXINE MEISSNERI** Tuck. On coconut palm, without definite locality, collected by Dr. J. N. Rose, 3198.
57. **PHYSICIA ALBA** (Fée) Muell. Arg. On *Erythrina*, St. Peter, 1443.
58. **PHYSICIA CAESIA** (Hoffm.) Nyl. On rocks, without definite locality, collected by Dr. Forel. Recorded by Nyl. Flora **63**: 127. 1880.
59. **PHYSICIA CRISPA** (Pers.) Nyl. On *Elaphrium*, near Charlotte Amalia, 491; on roots, same locality, 492, 496; on *Melicocca*, Tutu, 461.
60. **PHYSICIA EROSULA** Nyl. Flora **63**: 127. 1880. Based on material growing on rocks, St. Thomas, without definite locality, collected by Dr. Forel. Doubtfully distinct from the widely distributed *Physcia tribacia* (Ach.) Tuck.
61. **PHYSICIA PICTA** (Sw.) Nyl. On rock, St. Peter, 1260; on coconut palm, collected by Dr. J. N. Rose, 3197.
62. **PHYSICIA SPECIOSA** (Wulf.) Nyl. On rocks, near Charlotte Amalia, 405; on bark, St. Peter, 1248, 1250.

LICHENS OF ST. JAN

1. **PYRENULA MAMILLANA** (Ach.) Trev. On bark of *Icacorea*, Bordeaux, 597.
2. **MELANOTHECA ACHARIANA** Fée. On *Inga*, Bordeaux, 598. Cuba, Venezuela.
3. **MYCOPORELLUM ELLIPTICUM** Muell. Arg. Flora **72**: 508. 1889. On bark, without definite locality, collected by Levier, no. 113. Endemic.

4. ARTHONIA. On bark, Bordeaux, 577.
5. ARTHOTHELIUM MACROTHECUM (Fée) Mass. On *Icacorea*, Bordeaux, 540.
6. *Graphina nitidescens* (Nyl.) Riddle **comb. nov.**
Fissurina Nyl. Lich. Japon. 108. 1890.
 On *Nectandra*, Bordeaux, 581. Florida, Cuba, Porto Rico.
7. OPEGRAPHA VULGATA Ach. On *Maytenus*, Little St. James Island,
 N. L. Britton & J. N. Rose, 1405.
8. *Leptogium marginellum* var. *isidiosellum* Riddle **var. nov.**
 Thallus isidiis tenuibus dense tectus; ceterus ut in forma typica apothecia
 nulla.
 On wet rock, road to Rosenberg, N. L. Britton & J. A. Shafer,
 Feb. 5-7, 1913, no. 276 (**type!**).
- The fringed apothecia being such a characteristic feature of
Leptogium marginellum, it is only after some hesitation that this
 material has been placed here. The texture and the wrinkling of the
 thallus is in exact agreement, however, with typical specimens. And
 the relation of this variety to the species is strictly comparable with
 the conditions in *L. tremelloides*, abundantly fruiting in the tropics,
 and its variety *caesium*, with isidia but very rarely fruiting; and with
L. phyllocarpum and its variety *isidiosellum*.
9. PARMELIA TINCTORUM Despr. On tree-trunk, Bordeaux, 567.

The following lichens are recorded in "Le Végétation des Antilles
 Danoises" by F. Børgesen & Ove Paulsen in *Revue Générale de
 Botanique* 12: 507, 508. 1900.

STICTA WEIGELII (Ach.) Wainio. St. Croix; St. Thomas.

GRAPHIS SCRIPTA (L.) Ach. St. Croix.

LECIDEA BUELLIANA Muell. Arg. St. Croix.

PERTUSARIA WULFENII (DC.) Fr. St. Croix.

PARMELIA PERLATA (L.) Ach. St. Thomas; St. Jan.

PARMELIA TINCTORUM Despr. [*P. coralloides* Mey. et Flot.] St. Croix.

PHYSICIA INTEGRATA Nyl. St. Jan.

RINODINA sp. St. Croix.

VERRUCARIA sp. St. Croix.

ARTHONIA RADIATA (Pers.) Ach. St. Croix.

SCHIZOXYLON sp. St. Thomas.

FUNGI

During our exploration of St. Thomas and St. Jan in 1913, about
 25 species of fungi were obtained, and Dr. Rose collected four others
 on St. Croix; manuscript record has been made of these.

Twenty species collected by Mr. Ricksecker on St. Croix are

listed by Dr. Millspaugh in his "Flora of the Island of St. Croix," as determined by J. B. Ellis and F. D. Kelsey.¹⁸

Thirty-one species brought by various collectors to Copenhagen, determined by E. Rostrop, are recorded by Børgesen and Paulsen in their "Végétation des Antilles Danoises."

Seven species, collected on St. Thomas during the voyage of the "Challenger," are listed by M. J. Berkeley in Journal of the Linnean Society **14**: 352.

These records duplicate each other considerably, indicating a known fungus flora of somewhat over fifty species only. Inasmuch as there must be several hundred species on the islands, a list of fungi is deferred for further mycological field work.

ALGAE¹⁹

"The Marine Algae of the Danish West Indies" is the title of a work, now appearing in parts, in which Dr. F. Børgesen, of Copenhagen, is carefully describing and adequately illustrating the seaweeds of these islands. His adoption of the English language in this work makes it immediately serviceable to American students. Volume 1, including the Chlorophyceae (Green Algae) and Phaeophyceae (Brown Algae), was published in 1913 and 1914, and, at the date of writing, the first 240 pages of Volume 2, dealing with the Rhodophyceae (Red Algae) have appeared. Other papers of importance, dealing with the algae of the Danish West Indies, are the following:

- Borgesen, F.** A Contribution to the Knowledge of the Marine Alga Vegetation on the Coasts of the Danish West Indian Islands. Bot. Tidssk. **23**: 49-57. Figs. 1-4. 1900.
- Et Bidrag til Kundskaben om Algevegetationen ved Kysterne af Dansk Vestindien. Bot. Tidssk. **23**: 58-60. 1900. [An abstract, in Danish, of the foregoing article.]
- Contributions à la connaissance du genre *Siphonocladus* Schmitz. Overs. K. Danske Vidensk. Selsk. Forh. **1905**: 259-291. Figs. 1-13. 1905.
- An Ecological and Systematic Account of the Caulerpas of the Danish West Indies. K. Danske Vidensk. Selsk. Skr. VII. **4**: 337-392. Figs. 1-31. 1907.
- The Dasycladaceae of the Danish West Indies. Bot. Tidsskr. **28**: 271-283. Figs. 1-9. 22 My 1908.
- The Species of *Avrainvillea* Hitherto Found on the Shores of the Danish West Indies. Vidensk. Medd. Naturh. Foren. Kjøbenhavn **1908**: 27-44. pl. 33. Je 1908.
- Some New or Little-known West Indian Florideae. Bot. Tidssk. **30**: 1-19. pls. 1, 2, Figs. 1-11. 23 O 1909; II. Bot. Tidssk. **30**: 177-207. Figs. 1-20. 9 D 1910.
- Some Chlorophyceae from the Danish West Indies. Bot. Tidssk. **31**: 127-152. Figs. 1-13. 1911; II. Bot. Tidssk. **32**: 241-273. Figs. 1-17. 1912.

¹⁸ The new species were described in Bull. Torr. Club **24**: 207-209. 1897.

¹⁹ Contributed by Dr. Marshall A. Howe.

- The Algal Vegetation of the Lagoons in the Danish West Indies. Biol. Arbejd. tilegn. Eug. Warming. 41-45. Figs. 1-9. 1911.
- Two Crustaceous Brown Algae from the Danish West Indies. Nuova Notarisa 23: 123-129. Figs. 1-3. 1912.
- The Species of *Sargassum* Found along the Coasts of the Danish West Indies, with Remarks upon the Floating Forms of the Sargasso Sea. 1-20. Figs. 1-8. 1914. [No. 32 of a Mindeskrift for Japetus Steenstrup.]
- Cleve, Peter Theodor.** Diatoms from the West Indian Archipelago. [Virgin Islands and St. Bartholomew.] Bih. Svens. Vet. Akad. Handl. 5⁸: 1-22 pl. 1-5. 1878. Annot. list.
- Dickie, George.** Marine Algae Collected at St. Thomas during the Expedition of H. M. S. "Challenger." Jour. Linn. Soc. Bot. 14: 312-313. 17 O 1874. List.
- Millsbaugh, C. F.** Flora of the Island of St. Croix. Field Col. Mus. Bot. 1: 441-546. 1902. On pp. 467, 468 is a list of 17 species of marine algae, determined by Professor W. G. Furlow.
- Vahl, M.** Endeel Kryptogamiske Planter fra St. Croix. Skrivt. Naturh. Selsk. 5²: 29-47. 1802.

ENDEMIC SPECIES

The approximate number of species native to the islands as recorded, excluding fungi and algae, is 1,052, as follows:

Spermatophyta	890
Pteridophyta	41
Bryophyta	46
Lichenes	75
	<u>1,052</u>

The numbers of Spermatophyta and Pteridophyta are not likely to be increased by further exploration, but there are probably some more Bryophyta and many more lichens to be obtained. As we know the flora at the present time, the following 27 species are endemic, at least to the Virgin Island group as a whole.

- Valota Eggersii* (Hack.) Hitchc. & Chase
Agave Eggersiana Trelease
Peperomia myrtifolia (Vahl) A. Dietr.
Pilea Richardi Urban
Coccolobis Klotzschiana Meissn.
Zanthoxylum thomasianum Krug & Urban
Galactia Eggersii Urban
Malpighia pallens Small
Malpighia infestissima (Juss.) Rich.
Maytenus cymosa Krug & Urban
Reynosia Guama Urban
Sida Eggersii E. G. Baker
Psidium amplexicaule Pers.
Calypttranthes thomasiana Berg.

Eugenia sessiliflora Vahl
Chrysophyllum Eggersii Pierre
Forestiera Eggersiana Krug & Urban
Salvia thomasiana Urban
Physalis Eggersii O. E. Schulz
Solanum conocarpum L. C. Rich.
Wedelia cruciana L. C. Rich.
Phascum sessile E. G. Britton
Anthracotheceium Breutelii Muell. Arg.
Lecania euthallina Riddle
Caloplaca subsequestra (Nyl.) Riddle
Buellia prospersa (Nyl.) Riddle
Mycoporellum ellipticum Muell. Arg.

The endemic elements are, then, only about 2.6 percent. of the native flora. A few other species are almost endemic, being otherwise known only on Porto Rico or on some other neighboring island. There are a few endemic species known on Tortola, and one on Anagada, but if the native species of these two islands, additional to those of St. Thomas, St. Jan and St. Croix, were taken into account, the percentage of endemism would not be increased.

Porto Rico, with a very much greater area and much higher mountains, has about 13 percent of its species of Spermatophyta and Pteridophyta endemic.