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Britton, N L

The sedges of Jamaica

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OF THE

DEPARTMENT OF AGRICULTURE.

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SEPTEMBER, 1907.

Supplement 1.

EDITED BY

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THE SEDGES OF JAMAICA

BY

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Director-in-Chief of the New York Botanical Gardens, &c.

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THE SEDGES OF JAMAICA.

BY N. L. BRITTON.

The list of species of Cyperaceae published herewith is based primarily on collections in the herbarium of the New York Botanical Garden, supplemented by those in the herbarium of the Department of Public Gardens and Plantations, and by notes taken at the herbaria of the Royal Gardens at Kew and at the British Museum of Natural History. The principal literature consulted has been the Monograph of the West Indian Cyperaceae by the late Mr. C. B. Clarke, published by Professor Urban in the second volume of his *Symbolae Antillanae*, Grisebach's *Flora of the British West Indies*, and the several papers of O. Boeckeler.

Most of the species may be regarded as satisfactorily known, and their general distribution ascertained, but a considerable number are, as will be seen in the enumeration, known only from single specimens secured by the older collectors, so that very much remains to be done in order to ascertain their relative abundance or rarity, their habitats and distribution; in some cases the only record that we have is that the specimen was collected somewhere on the island, and in a few instances it is suspected that errors have been made in the origin of the plant cited, through a mixture of labels in the older herbaria, or in some other way.

I have accepted the generic limits outlined by Mr. Clarke in the paper above cited with the exception of his treatment of *Cyperus* and its segregates, where I have accepted the view of previous authors in taking *Cyperus* in its broad sense rather than recognizing the genera *Pycraeus*, *Mariscus*, and *Torulinium*, as I believe the characters depended on by Mr. Clarke for the maintenance of these genera are too vague for satisfactory use. It is my opinion that either this course must be taken, or that *Eleocharis*, *Scirpus* and *Rynchospora* must also be split up in order to be consistent. On the other hand, I accept the genus *Abildgaardia* as distinct from *Fimbristylis*, though I am not altogether clear that this position is readily defensible. I have also diverged from Mr. Clarke's treatment in accepting the generic name *Stenophyllus*, for the plants he includes under *Bulbostylis*, the former name having evident priority and being based on a well-known type.

The paper is submitted as a contribution to knowledge of the Jamaica flora from the Tropical Laboratory of the New York Botanical Garden at Cinchona, which is held as a research station through the cordial co-operation of the Colonial Government. One of the great needs of this research station is a more accurate know-

ledge of the flora of the island for the use of students either in residence there or at other institutions, and it is hoped that such a descriptive flora may be prepared in co-operation with the botanists of the Government at no distant date. In order to accomplish this, however, a very large amount of additional exploration must be done; the co-operative arrangement now in progress is rapidly supplying much needed material through the collecting trips of Mr. William Harris, Superintendent of Hope Gardens, but his valuable time for this purpose is naturally limited and should be supplemented by the work of other collectors in order that the information necessary may be more rapidly obtained.

References to specimens and their collectors have been restricted for the most part to work of the last few years, the older specimens being comprehensively cited by Mr. C. B. Clarke in his monograph.

KEY TO THE GENERA OF JAMAICAN CYPERACEAE.

A. Fertile flowers perfect

1. Basal empty scales of the spikelets none, or not more than two

Scales of the spikelets distichous

Spikelets with only one perfect flower

1. *Kyllinga*

Spikelets with 2 to many perfect flowers

2. *Cyperus*

Scales spirally imbricated (apparently distichous in *Abildgaardia*)

Base of the style persistent as a tubercle on the achene

Spikelet 1: bristles of the perianth usually present; culms leafless

3. *Eleocharis*

Spikelets several or numerous; bristles none; culms leaf-bearing

4. *Stenophyllus*

Base of the style not persistent as a tubercle

Flowers with no broad sepals nor perianth-scales

Base of the style swollen; perianth-bristles none

Scales of the nearly terete spikelets spirally imbricated

5. *Fimbristylis*

Scales of the distinctly flattened spikelet sub-distichous

6. *Abildgaardia*

Base of the style not swollen; bristles usually present

Bristles 8 or fewer, short, rarely none

7. *Scirpus*

Bristles numerous, long-exserted

8. *Eriophorum*

Flowers with a perianth of 3 broad sepals

9. *Fuirena*

2. Basal empty scales of the spikelets
3 or more
Style 2-cleft, its base persistent
as a tubercle on the achene
Bristles none; culm monocephalous 10. *Dichromena*
Bristles usually present; culm
usually polycephalous 11. *Rynchospora*
Style 3-cleft, its base fused with
the top of the achene 12. *Cladium*
- B. Flowers all imperfect; monoecious or dioecious sedges.
Pistillate flowers subtended by a scale; achene bony 13. *Scleria*
Pistillate flowers enclosed by a perigynium (utricle)
A long hooked bristle protruding from the perigynium 14. *Uncinia*
No hooked bristle 15. *Carex*

1. KYLLINGA, Rottb. Descr. et Ic. 2. 1773.

- Rootstock short or none; culms tufted
Fertile scale of the spikelet setulose on the keel 1. *K. pumila*
Fertile scale of the spikelet smooth on the keel 2. *K. odorata*
- Rootstock elongated; culms not tufted
Leaf-blades short or elongated 3. *K. pungens*
Leaf-blades short, acute 4. *K. brevifolia*
Leaf-blades long, attenuate 5. *K. peruviana*
Leaves reduced to sheaths
Type species, *Kyllinga monocephala*, Rottb.

1. KYLLINGA PUMILA, Michx. Fl. Bor. Amer. I: 28. 1803.

Roadside ditch, Stony Hill (Britton 832). Widely distributed in temperate and tropical America.

2. KYLLINGA ODORATA, Vahl, Enum. II: 382. 1806.

Kyllinga triceps, Griseb. Fl. Br. W. I. 568. 1866. Not Rottb. 1773.

In the lawns at Castleton Gardens (Britton 834); Temple Hall (Harris 9390). Previously collected in Jamaica by W. Wright. Widely distributed in warm and tropical America.

3. KYLLINGA PUNGENS, Link, Hort. Berol. I: 326. 1827.

Banks and along roads at higher elevations. Near Silver Hill Gap (Maxon 1124); Cinchona (Shreve; Harris 9501); Morce's Gap (Britton 217); Hardware Gap (Nichols 104). Not hitherto recorded from Jamaica.

4. KYLLINGA BREVIFOLIA, Rottb. Descr. et Ic. 13. 1773.

Kyllinga monocephala, Thunb. Fl. Jap. 35. 1784. Not Rottb. 1773.

In moist ground, common. Cinchona (Harris 9496, 9498). Marsh near Balaclava (Marble 704). Grisebach in Flora British West Indies attributes both *K. brevifolia*, Rottb. and *K. monocephala*, Rottb. to Jamaica but the latter is purely an Old World species,

5. KYLLINGA PERUVIANA, Lam. Encyc. III: 366. 1789.

Mariscus aphyllus, Vahl, Enum. II: 373. 1806.*Kyllinga aphylla*, Kunth, Enum. II: 127. 1837.

Obtained in Jamaica by several collectors; not observed by us (J.P. 843).

2. CYPERUS L. Sp. Pl. 44. 1753.

Style-branches 2: achene lenticular

Achene dorsally flattened

1. *C. laevigatus*

Achene laterally flattened

Scales of the spikelets blunt, straw-colour

2. *C. densus*

Scales of the spikelets acute

Scales 1.5 mm. long, dull; inflorescence compact

3. *C. odoratus*

Scales 2-2.5 mm. long, shining; inflorescence loose

4. *C. paniculatus*

Style-branches 3; achene turgid or trigonous

A. Spikelets more or less flattened, not breaking up at the nodes

I. Rachis of the spikelet persistent, the scales falling away from it

a. Rachis-wings none, or very narrow

Plants annual

Scales sharply acuminate

5. *C. compressus*

Scales obtusish, often with purplish margins

6. *C. sphacelatus*

Plants perennial

Spikelets only 1 or 2; culm and leaves filiform

7. *C. trichodes*

Spikelets several or numerous

Spikelets spicate, about 1 mm. wide

8. *C. distans*

Spikelets digitate

Stamens 3 or 2

Scales acute or acuminate; basal leaves reduced to sheaths

9. *C. Haspan*

Scales mucronate or short-awned; basal leaves normal

Leaves convolute, at least in drying

Achene narrowly linear-oblong

10. *C. oxylepis*

Achene obovoid; culm viscid

11. *C. elegans*

Leaves flat, grass-like

12. *C. diffusus*

Stamen only 1.

Spikelets lanceolate to oblong-lanceolate

13. *C. ochraceus*

Spikelets ovate, elongating in age.

- Leaves 5-6 mm. wide,
transversely nerved
between the veins 14. *C. vegetus*
Leaves 2-3 mm. wide,
not transversely nerved
between the veins 15. *C. surinamensis*
- b. Rachis distinctly winged.
Plants perennial by root-
stocks
Basal leaves grass-like ;
weed of waste and culti-
vated ground 16. *C. rotundus*
Basal leaves reduced to
sheaths ; tall marsh sedges
with pseudo-septate culms
Culm terete 17. *C. articulatus*
Culm trigonous at the apex 18. *C. nodosus*
Annuals, flowering the first
season
Basal leaves reduced to
sheaths ; involucreal leaves
very numerous, longer than
the umbels 19. *C. giganteus*
Basal leaves normal, half
as long as the culm or
longer 20. *C. radiatus*
2. Rachis of the spikelet falling away
above the two lower empty scales
Achene narrowly linear-oblong,
2.5 to 4 times as long as thick
Spikelets spicate, several-
flowered 21. *C. platystachys*
Spikelets capitate or capitate-
spicate, only 1-4—flowered.
Heads globose 22. *C. globulosus*
Heads cylindric 23. *C. cyperoides*
Achene obovoid or oblong, not
more than twice as long as thick
Spikelets 1-5—flowered
Umbel simple, or culm mono-
cephalous
Scales of the spikelets im-
bricated
Spikelets loosely spicate,
tetragonous 24. *C. tetragonus*
Spikelets densely spicate
or capitate
Spikelets 2-5 mm. long 25. *C. cayennensis*
Spikelets 1.5 mm. long
or less
Spikes several, rarely
solitary ; leaves 2-3
mm. wide 26. *C. Swartzii*
Spike solitary, rarely
2 ; culms and leaves
almost filiform 27. *C. granularis*

- Scales of the spikelets distant; leaves 2 mm. wide or less; slender sedges
- Spikelets 4-5 mm. long 28. *C. tenuis*
- Spikelets 2 mm. long or less 29. *C. nanus*
- Umbel compound
- Spikes ovoid, 8-12 mm. thick 30. *C. Mutisii*
- Spikes long-cylindric, 5-7 mm. thick 31. *C. ligularis*
- Spikelets 15-25—flowered
- Scales acute or mucronulate. awnless 32. *C. brunneus*
- Scales awned, appressed 33. *C. confertus*
- B. Spikelets nearly or quite terete, breaking up at the nodes into 1-fruited joints
- Spikes solitary or 2; culm filiform; perennial by rootstocks 34. *C. filiformis*
- Spikes umbellate; culms stout to slender; annuals, or at least without rootstocks.
- Scales distant, not overlapping
- Spikes loose; spikelets yellowish-brown 35. *C. ferox*
- Spikes dense; spikelets red brown 36. *C. VahlII*
- Scales overlapping 37. *C. speciosus*
- Type species, *Cyperus esculentus*, L.

1. CYPERUS LAEVIGATUS, L. Mant. 179. 1771.

Juncellus laevigatus, Clarke in Hook. f. Fl. Brit. Ind. VI: 596. 1893.

In marshes along the coast. Between Kingston and Spanish Town (Fawcett 8142); Rockfort (Britton 787; Harris 9564.) Widely distributed in warm and tropical regions both of the old world and the new.

2. CYPERUS DENSUS, Link, Jahrb. III: 83. 1820

Cyperus helvus, Liebm. Mex. Halvgr. 9. 1850.

Cyperus variegatus, Griseb. Fl. Br. W. I. 562. 1864. Not H. B. K.

Pycnus helvus, Clarke in Urban, Symb. Ant. II: 19. 1900.

Frequent in marshes and ditches. Temple Hall (Harris 9392); Port Antonio (Britton 872); Stony Hill (Britton 833). Tropical America.

3. CYPERUS ODORATUS, L. Sp. Pl. 46. 1753.

Cyperus polystachyus, R. Br. Prodr. 214. 1810.

Pycnus polystachyus, Beauv. Fl. d'Owar. II: 48. 1807.

Pycnus odoratus, Urban, Symb. Ant. II: 164. 1900.

In marshes near the coast, in the vicinity of Port Antonio (Marble 847; Britton 901). Not hitherto reported from Jamaica. Widely distributed in tropical regions.

4. CYPERUS PANICULATUS, Rottb. Descr. et Ic. 40. 1773.

Pycnus paniculatus, Nees, Linnaea, IX: 283. 1834.

Reported from Jamaica by Clarke, as collected by Purdie, under

the name *Pycnus polystachyus*, var. *laxiflora*, Ridley ; moist ground, Troy (Britton 663). Warm and tropical America.

5. CYPERUS COMPRESSUS, L. Sp. Pl. 46. 1753.
Jamaica (Sloane, pl. 76 f. 1, cited by Linnaeus ; Purdie). This common weed of nearly all warm and tropical countries does not appear to be abundant in Jamaica, as it is not represented in the herbarium of the Department of Public Gardens and Plantations.

6. CYPERUS SPHACELATUS, Rottb. Descr. et Ic. 26. 1773.
Jamaica, collected by several botanists as recorded by Grisebach and by Clarke (J. P. 853). Common in most parts of Tropical America.

7. CYPERUS TRICHODES, Griseb. Fl. Br. W.I. 564. 1864.
Marshes at lower elevations ; apparently local. Near Balaclava (Marble 706.) Endemic.

8. CYPERUS DISTANS, L. f. Suppl. 103. 1781.
Frequent in wet or moist soil at middle elevations. Banks, Content Gap (Britton 39). Previously accredited to Jamaica by Swartz. Widely distributed in warm and tropical regions.

9. CYPERUS HASPAN, L. Sp. Pl. 45. 1753.
Marshes and wet meadows, collected by Alexander and by Wulfschlaegel. Widely distributed in warm and tropical regions.

10. CYPERUS OXYLEPIS, Nees ; Steud. Syn. Pl. Cyp. 25. 1855.
Collected in Jamaica by Alexander as recorded by Clarke. Northern South America.

11. CYPERUS ELEGANS, L. Sp. Pl. 45. 1753.
Cyperus viscosus, Sw. Prodr. 20. 1788.
Occasional in marshes at low elevations. Also on Cayman Brac (Millspaugh 1171). Common throughout the West Indies ; Central America to Argentina.

12. CYPERUS DIFFUSUS, Vahl, Enum. II : 321. 1806.
Cyperus laxus, Griseb. Fl. Br. W.I. 563. 1864. Not Lam.

Frequent on moist banks and hillsides up to 500 m. Near Gordon Town (Britton 3) ; near Castleton (Underwood 113). Widely distributed in tropical regions, but not known from the northern West Indies.

13. CYPERUS OCHRACEUS, Vahl, Enum. II : 325. 1806.
Frequent in marshes and ditches at elevations up to 500 m. Port Antonio (Britton 858) ; near St. Paul, Cockpit Country (Marble 700) ; Mona Estate near Hope (Harris 8846 ; 8942). Widely distributed in Tropical America.

14. CYPERUS VEGETUS, Willd. Sp. Pl. I : 283. 1797.
Along a brook, Troy (Britton 460). Not otherwise known from the West Indies. Distribution : California to Chili.

15. CYPERUS SURINAMENSIS, Rottb. Descr. et Ic. 35. 1773.
This widely distributed Tropical American sedge is known to me from Jamaica only by a specimen collected by Hart, mixed with *C. ochraceus*, as recorded by Clarke.

16. CYPERUS ROTUNDUS, L. Sp. Pl. 45. 1753.
A weed in waste places and cultivated soil. Widely distributed in warm and tropical regions.

17. CYPERUS ARTICULATUS, L. Sp. Pl. 44. 1753.
Common in marshes at lower altitudes. Near Ferry River (Britton 392) ; Resource (Harris 6917). Widely distributed in tropical regions.

18. CYPERUS NODOSUS, Willd. Enum. Hort. Berol. 72. 1809. Recorded from Jamaica by Clarke, as collected by March. Distribution: Central America, Northern South America; Martinique.

19. CYPERUS GIGANTEUS, Vahl, Enum. II: 364. 1806.

Cyperus elatus, Griseb. Fl. Br. W. I. 566, in part. 1866. Coastal marshes and along lagoons. Ferry River (Fawcett & Harris; Britton 396). West Indies and Central America to Uruguay.

20. CYPERUS RADIATUS, Vahl, Enum. II: 369. 1806.

Shown in the Kew Herbarium by a specimen from Jamaica, according to Clarke, the collector not cited. Distribution: tropical regions of the Old World and the New.

21. CYPERUS PLATYSTACHYUS, Griseb. Fl. Br. W. I. 567. 1864.

Mariscus flabelliformis, H. B. K. Nov. Gen. & Sp. I: 215.

1815. Not *Cyperus flabelliformis*, Rottb.

Frequent on banks and along streams at low and middle elevations. Near Gordon Town (Britton 5); Troy (Britton 613); near Port Antonio (Earle 625). Central America and northern South America: Martinique.

22. CYPERUS GLOBULOSUS, Aubl. Pl. Guiana, I: 47. 1775.

Mariscus echinatus, Ell. Bot. S. C. & Ga. I: 75. 1816.

Cyperus cyclostachyus, Griseb. Fl. Br. W. I. 567. 1864.

Mariscus globulosus, Urban, Symb. Ant. II: 165. 1900.

Jamaica, collected by March and by Hart. Distribution: Southeastern United States; Bermuda; Porto Rico (according to Clarke); Guiana.

23. CYPERUS CYPEROIDES (L.) Britton

Scirpus cyperoides, L. Mant. II: 181. 1771.

Mariscus Sieberianus, Nees, Linnaea, 9: 286. 1834 (hyponym)

Mariscus cyperoides, Urban, Symb. Ant. II: 164. 1900.

Collected in Jamaica by Hart and by Wulfschlaegel, as cited by Clarke. Introduced from Tropical Asia or Africa. Also in Trinidad.

24. CYPERUS TETRAGONUS, Ell. Bot. S. C. & Ga. I: 71. 1816.

Cyperus anceps, Liebm. Mex. Halvgr. 25. 1850.

Mariscus tetragonus, Clarke in Urban, Symb. Ant. I: 44. 1900.

Recorded by Clarke from Jamaica as collected by Wulfschlaegel. Distribution: southeastern United States and Mexico.

25. CYPERUS CAYENNENSIS, (Lam.) Britton

Kyllinga cayennensis, Lam. Ill. I: 149. 1791.

Mariscus flavus, Vahl, Enum. II: 374. 1806.

Cyperus flavomariscus, Griseb. Fl. Br. W. I. 567. 1864.

Mariscus cayennensis, Urban, Symb. Ant. II: 165. 1900.

In fields and on banks, frequent. Vicinity of Constant Spring (Maxon 2155). Southeastern United States and Mexico to Patagonia.

26. CYPERUS SWARTZII (Dietr.) Boeckl.

Mariscus Swartzii, Dietr. Sp. Pl. II: 343. 1833.

Kyllinga filiformis, Sw. Prodr. 20. 1788. Not *Cyperus filiformis* Sw.

Cyperus caymanensis, Millsp. Field Col. Mus. Bot. II: 120. 1900.

Recorded by Grisebach and by Clarke. Jamaica Plants No. 1561,

in herb. Public Gardens (Rev. Bassett Key). Grand Cayman (Millspaugh 1334). Distribution: Jamaica, Haiti, Cuba, Guadeloupe.

27. CYPERUS GRANULARIS (Desf.) Britton

Kyllinga granularis, Desf. ; Boeckl. Linnaea, XXXV : 432. 1867-68

Cyperus nanus, Boeckl. in Engler's Bot. Jahrb. I: 363. 1881. Not Willd. 1797.

Mariscus gracilis, Vahl, Enum. II: 273. 1806. Not *Cyperus gracilis* R. Br.

Kyllinga filiformis, var. a, Griseb. Fl. Br. W. I. 568. 1864.

Jamaica (March 13, according to Clarke). Distribution: Haiti, Porto Rico, St. Martin, St. Croix.

28. CYPERUS TENUIS, Sw. Prodr. 20. 1788.

Mariscus tenuis, Clarke in Urban, Symb. Ant. II: 48. 1900.

Jamaica, collected by March and by Purdie. Distribution: Haiti and St. Croix.

29. CYPERUS NANUS, Willd. Sp. Pl. I: 272. 1796.

Schoenus capillaris, Sw. Prodr. 20. 1788. Not *Cyperus capillaris*, Koen.

Mariscus capillaris, Vahl, Enum. II: 372. 1806.

Kyllinga capillaris, Griseb. Kar. 120. 1857.

Jamaica (March 13, according to Clarke). Mr. Clarke cites this same collection number of March under *Mariscus gracilis*.

30. CYPERUS MUTISII (H. B. K.) Griseb. Fl. Br. W. I. 567. 1864.

Mariscus Mutisii, H. B. K. Nov. Gen. & Sp. I: 216. pl. 66. 1815.

Hillsides and banks at middle and higher altitudes. Cinchona (Underwood 424; Harris 9500; Shreve); near Gordon Town (Britton 13). Distribution: Haiti: Porto Rico: Mexico to Bolivia.

31. CYPERUS LIGULARIS, L. Amoen. Acad. V: 391. 1859.

Mariscus rufus, H. B. K. Nov. Gen. & Sp. I: 216. pl. 67. 1815.

Mariscus ligularis, Urban, Symb. Ant. II: 165. 1900.

Common along brackish marshes. Navy Island (Fredholm 3322). Grand Cayman (Millspaugh 1301). Widely distributed in the warm and tropical parts of America.

32. CYPERUS BRUNNEUS, Sw. Fl. Ind. Occ. I: 116. 1797.

Mariscus bruneus, Clarke in Urban, Symb. Ant. II: 51. 1900.

On sandy sea-beaches; also on the Cayman Islands. Distribution: sea-beaches and sand-dunes from Bermuda and Florida to Barbados and Central America.

33. CYPERUS CONFERTUS, Sw. Prodr. 20. 1788.

Mariscus confertus, Clarke in Urban, Symb. Ant. II: 50. 1900.

Banks and hillsides in the drier parts of the island. Near Hope (Harris 6641). Haiti: Porto Rico to Martinique; northern South America.

34. CYPERUS FILIFORMIS, Sw. Prodr. 20. 1788.

Torulinium filiforme, Clarke in Urban, Symb. Ant. II: 57. 1900.

Edges of marshes. Observed by us only near Balaclava (Marble

707), but obtained by the earlier collectors. Grand Cayman (Mills-paugh 1296). Common in the West Indies.

35. CYPERUS FERAX, Rich. Act. Soc. Hist. Nat. Paris' I: 106. 1792.

Cyperus flexuosus, Vahl, Enum. II: 359. 1806.

Torulinum confertum, Hamilt. Prodr. Fl. Ind. Occ. 15. 1826.

Torulinum ferax, Urban, Symb. Ant. II: 165. 1900.

Common in swamps and along streams at low and middle elevations. Hartford, near Priestman's River (Maxon 2531); near St. Paul (Marble 699); Troy (Maxon 2930; Britton 471); Mona (Harris 8939). Widely distributed in warm and tropical parts of America.

36. CYPERUS VAHLII, (Nees) Steud. Syn. Pl. Cyp. 48. 1855.

Dididim VahlII, Nees in Mart. Fl. Bras. II: 53. 1843.

Cyperus flexuosus, Griseb. Pl. Cub. 238. 1866. Not Vahl. 1806.

Collected in Jamaica by Wilson as cited by Clarke; Jamaica Plants No. 844. Cuba; Haiti; Windward Islands.

37. CYPERUS SPECIOSUS, Vahl, Enum. II: 364. 1806.

Cyperus Michauxianus, Schultes in R. & S. Syst. II: Mant. 123. 1824.

Torulinum Michauxianum, Clarke in Urban, Symb. Ant. II: 56. 1900.

This species of Eastern North America is cited by Clarke as collected in Jamaica by W. Wright.

CYPERUS ALTERNIFOLIUS, L., a widely cultivated ornamental species, native of Tropical Africa, has escaped from Castleton Gardens and become established along the Wag Water River as observed by Mr. William Harris.

3. ELEOCHARIS, R. Br. Prodr. Fl. Nov. Holl. I: 224. 1810. Spikelet cylindric, scarcely or not at all thicker than the culm; scales coriaceous, not keeled

Culms terete, nodose

1. *E. interstincta*

Culms angled, continuous

2. *E. montata*

Spikelet ovoid or oblong, thicker than the culm; scales membranous, keeled.

Style-branches 2; achene lenticular or biconvex

Upper sheath with a membranous hyaline limb; rootstock slender

3. *E. flaccida*

Upper sheath 1-toothed; rootstock none

4. *E. capitata*

Style-branches 3; achene 3-angled

Culms continuous

Culms setaceous or filiform

Achene cancellate; spikelet 1-4—flowered

5. *E. retroflexa*

Achene smooth; spikelet 8-10—flowered

6. *E. microcarpa*

Culms slender

7. *E. albida*

Culms stout, pseudo-septate, constricted under the spikelet

8. *E. gemiculata*

Type species *Scirpus palustris*, L.

1. ELEOCHARIS INTERSTINCTA (Vahl) R. & S. Syst. II: 148. 1817.

Scirpus plantagineus, Griseb. Kar. 122. 1857.

Scirpus interstinctus, Vahl, Enum. II: 251. 1806.

Frequent in coastal marshes. Folly Point (Fredholm 3146). Very widely distributed in marshes from Rhode Island to temperate South America

2. ELEOCHARIS MUTATA (L.) R. & S. Syst. II: 155. 1817.

Scirpus mutatus, L. Amoen. Acad. V: 391. 1760.

Frequent or occasional in marshes. Near Ewarton (Harris 8513; Underwood 1861). Widely distributed in tropical America.

3. ELEOCHARIS FLACCIDA (Spreng.) Urban, Symb. Ant. II: 165. 1900.

Scirpus flaccidus, Spreng. Tent. Suppl. 3. 1828.

Scirpus ochreatus, Griseb. Fl. Br. W. I. 570. 1864.

Eleocharis ochreatea, Nees, Linnaea, IX: 294. 1834.

In a brook, Troy (Britton 458); near Troy (Harris 8553). Widely distributed in tropical and warm-temperate America.

4. ELEOCHARIS CAPITATA (L.) R. Br. Prodr. 225. 1810.

Scirpus capitatus, L. Sp. Pl. 48. 1753.

In wet places, common at lower elevations. Near Annatto Bay (Maxon 1966); Rockfort (Britton 788; Harris 9380, 9565); Temple Hall (Harris 9389). In all tropical and subtropical regions.

5. ELEOCHARIS RETROFLEXA (Poir.) Urban, Symb. Ant. II: 165. 1900.

Scirpus retroflexus, Poir. in Lam. Encycl. VI: 753. 1804.

Eleocharis Chaetaria, R. & S. Syst.. II: 154. 1817.

Near Ewarton, around edges of a pond (Harris 8512; Underwood 1862; in a brook, Troy (Britton 451). Nearly throughout the West Indies and tropical South and Central America.

6. ELEOCHARIS MICROCARPA, Torr. Ann. Lyc. N. Y. III: 312. 1836.

Eleocharis minima, Kunth, Enum. II: 139. 1837.

Reported from Jamaica by Clarke, as collected by Purdie. Distributed from the southern United States and Mexico and the West Indies to Brazil. Torrey's type specimens were from New Orleans; the plant of the Atlantic United States from New Jersey southward which has been referred to this species is *E. Torreyana*, Boeckl.

7. ELEOCHARIS ALBIDA, Torr. Ann. Lyc. N. Y. III: 304. 1836.

Jamaica (Mac Nab, according to Clarke). Reported from Bermuda; otherwise known only from the south-eastern United States and Mexico.

8. ELEOCHARIS GENICULATA (L.) R. & S. Syst. II: 150. 1817

Scirpus geniculatus, L. Sp. Pl. 48. 1753.

Scirpus constrictus, Griseb. Kar. 122. 1857.

Common in marshes and ditches up to 1300 m. altitude. Near Castleton (Underwood 131); River Head near Ewarton (Underwood 1867); Content Road to Cinchona (Underwood 159); near Balaclava (Marble 913); Hardware Gap (Nichols 97). Tropical America. Jamaica is the type locality of this species.

4. STENOPHYLLUS, Raf. Neog. 4. 1825.

[BULBOSTYLIS, Kunth, Enum. II: 205. 1837.]

Leaves narrowly linear, 1.5 cm. long, or reduced nearly to sheaths;
achene narrowly obovoid1. *S. subaphyllus*Leaves setaceous; achene broadly obo-
void2. *S. capillaris*Type species, *Scirpus stenophyllus*, Ell.

1. STENOPHYLLUS SUBAPHYLLUS (Clarke) Britton

Bulbostylis subaphylla, Clarke in Urban, Symb. Ant. II: 86. 1900.

Summit of Bull Head Mountain (Underwood 3364). Otherwise known only from Cuba (C. Wright 1533, in part).

2. STENOPHYLLUS CAPILLARIS (L.) Britton, Bull. Torr. Club. XXI: 30. 1894.

Scirpus capillaris, L. Sp. Pl. 49. 1753.*Bulbostylis capillaris*, Clarke in Hook. f. Fl. Br. Ind. VI: 652.

Recorded from Jamaica by Clarke as collected by Wulfschlaegel; otherwise not known from the island. Common in the Eastern United States.

5. FIMBRISTYLIS, Vahl, Enum. II: 285. 1806.

Style 2-cleft

Achene longitudinally ribbed

1. *F. diphylla*

Achene reticulated

Leaves nearly or quite as long as the culm;

scales of the spikelets chestnut-brown

2. *F. spadicea*

Leaves much shorter than the culm; scales of the spikelets pale brown or greenish.

Leaves very short; spikelets about 1

cm. long

3. *F. ferruginea*

Leaves half as long as the culm;

spikelets 3-6 mm. long

4. *F. glomerata*

Style 3-cleft

5. *F. complanata*Type species, *Fimbristylis acuminata*, Vahl.

1. FIMBRISTYLIS DIPHYLLA (Retz.) Vahl, Enum. II: 289. 1806.

Scirpus diphyllus, Retz. Obs. V: 15. 1789.*Fimbristylis laxa*, Vahl, loc. cit. 292. 1806.*Fimbristylis brizoides*, Nees, Linnaea, IX: 290. 1834.

In fields and on banks, frequent. Near Port Antonio (Earle 624; j Fredholm 3301; Britton 866); near Troy (Harris 8707; Maxon 2810); Temple Hall (Harris 9391); Cinchona (Harris 9495). Widely distributed in tropical regions.

2. FIMBRISTYLIS SPADICEA (L.) Vahl, Enum. II: 294. 1806.

Scirpus spadiceus, L. Sp. Pl. 51. 1753.

Common in coastal marshes. Port Antonio (Britton 860). Jamaica is the type locality for this species (Sloane, I: 118, pl. 76, f. 2). Distribution: West Indies.

3. FIMBRISTYLIS FERRUGINEA (L.) Vahl, Enum. II: 291. 1806.

Scirpus ferrugineus, L. Sp. Pl. 50. 1753.

Common in coastal marshes. Port Antonio (Britton 906). Jamaica is the type locality. Distribution: West Indies.

4. FIMBRISTYLIS GLOMERATA (Retz.) Urban, Symb. Ant. II: 166. 1900.

Scirpus glomeratus, Retz. Obs. 4. II. 1786.

Fimbristylis spathacea, Roth, Nov. Sp. 24. 1821.

Marshes, Port Antonio (Britton 863); roadside ditch, Rockfort (Britton 784; Harris 9318) Not hitherto recorded from Jamaica.

5. FIMBRISTYLIS COMPLANATA (Retz.) Link, Hort. Berol. I: 292. 1827.

Scirpus complanatus, Retz. Obs. V: 14. 1789.

Scirpus amentaceus, Griseb. Kar. 123. 1857.

Coastal marshes between Annotta Bay and Buff Bay (Britton 845) Widely distributed in tropical regions.

6. ABILDGAARDIA, Vahl, Enum. II: 296. 1806.

Type species, *Cyperus monostachyus*, L.

ABILDGAARDIA MONOSTACHYA, (L.,) Vahl Enum. II: 296 1806.

Cyperus monostachyus, L. Mant. 180. 1771.

Fimbristylis monostachya, Hassk. Pl. Jav. Rar. 61. 1848.

Frequent on dry banks and in fields. Near Port Antonio (Fredholm 3277); Troy (Britton 439); between Potsdam and Lover's Leap (Britton 1138). Widely distributed in tropical regions.

7. SCIRPUS, L. Sp. Pl. 47. 1753.

Culms tall, stout

Spikelets umbelled; culms terete 1. *S. validus*

Spikelets capitate; culm trigonous 2. *S. Olneyi*

Culms filiform, low 3. *S. caespitosus*

Type species, *Scirpus lacustris*, L.

1. SCIRPUS VALIDUS, Vahl, Enum. II: 268. 1806.

Frequent in coastal marshes. Ferry River (Fawcett & Harris 8089; Britton 398). Common in warm and tropical America.

2. SCIRPUS OLNEYI, A. Gray, Boston Journ. Nat. Hist. V: 238. 1845.

Recorded by Clarke as collected in Jamaica by Bromfield. Distribution: United States and West Indies.

3. SCIRPUS CAESPITOSUS, L. Sp. Pl. 48. 1753.

This species of high mountains of the north temperate zone, is recorded by Boeckeler in Linnaea, XXXVI: 488, as occurring in Jamaica, but this is almost certainly an error.

8. ERIOPHORUM, L. Sp. Pl. 52. 1753.

Type species, *Eriophorum vaginatum*, L.

1. ERIOPHORUM POLYSTACHYUM, L. Sp. Pl. 52. 1753.

Eriophorum angustifolium, Roth, Neue Beitr. 94. 1802.

Jamaica (W. Wright, according to Clarke). Known otherwise only from cold temperate regions; the identity of the specimen cited is open to suspicion.

9. FUIRENA Rottb. Descr. et Ic. 70. 1773.

Heads of spikelets numerous in a long panicle; leaves 8-12 mm. wide

1. *F. umbellata*

Heads of spikelets only 1 to 5; leaves 4 mm.

wide or less

2. *F. squarrosa*

Type species, *Fuirena umbellata*, Rottb.

1. *FUIRENA UMBELLATA*, Rottb. Descr. et Ic. 70. 1773.
Frequent in coastal marshes. Near Cold Harbour, east of Port Antonio (Britton 900). Widely distributed in tropical regions.

2. *FUIRENA SQUARROSA*, Michx. Fl. Bor. Am. I: 37. 1803.
Jamaica, according to Vahl, but not found on the island by recent collectors. The species is widely distributed in the eastern United States and is reported from Cuba.

10. *DICHROMENA*, Michx. Fl. Bor. Am. I: 37. 1803.
Bracts of the involucre ciliate at the base

Spikelets capitate-spicate; bracts white
toward the base

1. *D. ciliata*

Spikelets 1-5; bracts mostly green throughout

2. *D. radicans*

Bracts of the involucre not ciliate

3. *D. colorata*

Type species, *Dichromena leucocephala*, Michx.

1. *DICHROMENA CILIATA*, Vahl, Enum. II: 240. 1806.

Rhynchospora pura, Griseb. Fl. Br. W. I. 577. 1864.

Grassy banks and meadows; frequent at low and middle elevations. Brandon Hill (Thompson 8101); Mansfield, Bath (Nichols 192); near Port Antonio (Fredholm 3021), Troy (Britton 447). Widely distributed in Tropical America.

2. *DICHROMENA RADICANS*, Schl. & Cham. Linnaea, VI: 28. 1831.

Rhynchospora Persooniana, Griseb. Fl. Br. W. I. 377. 1864

Meadow, near Hollymount (Britton 769). Widely distributed in Tropical America.

3. *DICHROMENA COLORATA* (L.) A. S. Hitchc. Rep. Mo. Bot. Gard. IV: 141. 1893.

Schoenus coloratus, L. Sp. Pl. 43. 1753.

Rhynchospora stellata, Griseb. Kar. 123. 1857.

Dichromena leucocephala, Michx. Fl. Bor. Am. I: 37. 1803.

Recorded from Jamaica by Grisebach and by Clarke and represented in the herbarium of the Public Gardens. Grand Cayman (Millspaugh 1375). Distribution: Southern United States, West Indies and Central America.

II. *RYNCHOSPORA* Vahl, Enum. II: 229. 1806.

Style long, its branches much shorter than the lower undivided part

Spikelets densely capitate

1. *R. cyperoides*

Spikelets in panicle clusters, not densely capitate

Tubercle nearly or quite twice as long as the achene

2. *R. Eggersiana*

Tubercle shorter than the achene, or but little longer.

Bristles about as long as the achene or longer

3. *R. corymbosa*

Bristles obsolete or none

Spikelets fascicled, leaves 1.5-3 mm. wide

4. *R. elongata*

Spikelets not fascicled, the clusters loose; leaves 4 mm. wide

5. *R. polyphylla*

Style short, its branches about as long as the lower undivided part.

Bristles none

Spikelets 1-2 mm. long

Spikelets 3-6 mm. long

Achene not 3-toothed

Achene 3-toothed at the summit

Bristles present, upwardly barbed

Achene smooth

Achene cancellate

Achene transversely wrinkled

Bristles shorter than the achene ; spikelets filiform-peduncled

Bristles as long as the achene or longer ; spikelets not filiform-peduncled

Achene not stipitate ; spikelets about 3 mm. long

Achene stipitate ; spikelets 5-7 mm. long

Type species, *Rynchospora aurea*, Vahl.

6. *R. micrantha*

7. *R. Berterii*

8. *R. setacea*

9. *R. fascicularis*

10. *R. cephalotes*

11. *R. rariflora*

12. *R. glauca*

13. *R. jubata*

1. RYNCHOSPORA CYPEROIDES (Sw.) Mart. Denksch. Acad. Wiss. Muench. VI: 149. 1816-17.

Schoenus cyperoides, Sw. Prodr. 19. 1788.

Meadow between Oxford and Wallingford (Britton 692) ; Oxford (Harris 9441). Not recorded by Clarke from Jamaica, but duly recorded by Grisebach. Widely distributed in Tropical America.

2. RYNCHOSPORA EGGERSIANA, Boeckl. Cyp. Nov. II. 26. 1890.

Rynchospora florida, Griseb. Fl. Br. W. I. 575. 1864.

Rynchospora aristata, Clarke in Urban, Symb. Ant. II: 115, in part, 1900.

Common in mountain woods. St. Catherine's Peak (Eggers 3596, type ; Blue Mountain Peak (Shreve) ; John Crow Peak (Britton 276) ; Morce's Gap (Nichols 42 ; Britton 917) ; Cinchona (Underwood 468 ; Shreve ; Britton 63). Endemic. Differs from the Mexican and South American *R. aristata*, Boeck. by its shorter tubercle, longer bristles and more conspicuously cancellate achene.

3. RYNCHOSPORA CORYMBOSA (L.) Britton, Trans. N. Y. Acad. Sci. XI: 85. 1902.

Scirpus corymbosus, L. Sp. Pl. 76. 1753.

Rynchospora aurea, Vahl, Enum. II. 229. 1806.

Schoenus surinamensis, Rottb. Descr. et Ic. 68. 1773.

Rynchospora surinamensis, Nees, Linnaea, IX: 297. 1834.

Marshes, Port Antonio (Britton 859). Not otherwise known from Jamaica, except as cited by Grisebach, collected long ago by Swartz, and not referred to by Clarke.

4. RYNCHOSPORA ELONGATA, Boeckl. Cyp. Nov. I: 261. 1888.

On shaded banks and in bogs at higher elevations. New Haven Gap (Shreve) ; near Cinchona (Britton 132) ; Morce's Gap (Britton 914). John Crow Peak (Britton 196) ; Sir John Peak (Britton 279) ; slopes below Sir John Peak (Harris 9550). Distribution : Jamaica ; Porto Rico ; Guadeloupe.

5. RYNCHOSPORA POLYPHYLLA, Vahl, E.num. II. 230. 1806.

Schoenus polyphyllus Vahl, Eclog. Am. II: 5. 1798.

Banks, hillsides and moist woods, common at higher and middle elevations. Cuna Cuna Pass (Fredholm 3240); Cinchona (Shreve; Harris 9502); John Crow Peak (Nichols 44); Content Gap (Britton 33); near Moore Town (Marble 851); Bull Head Mountain (Underwood 3379); Troy (Maxon 2817). Southern West Indies; Central America to Venezuela.

6. RYNCHOSPORA MICRANTHA, Vahl, Enum. II: 231. 1806. Edge of a brook, Troy (Britton 457). Widely distributed in Tropical America, and occurs also in Tropical Africa.

7. RYNCHOSPORA BERTERII (Spreng.) Clarke, in Urban, Symb. Ant. II: 119. 1900.

Schoenus pusillus, Sw. Prodr. 20. 1788.

Hypolytrum Berterii, Spreng. Neue Entd. I: 241. 1820.

Rynchospora pusilla, Griseb. Kar. 123. 1857. Not Curtis.

On moist banks, shaded rocks and along brooks and ditches at low and middle elevations. Near Troy (Harris 8691, 9420); Tyre (Britton 911); Oxford (Britton 428); Port Antonio (Fredholm 3114) Distribution: West Indies south to Guadeloupe.

8. RYNCHOSPORA SETACEA (Berg.) Boeckl. Vidensk. Medd. Kjob. 1869-70: 159.

Schoenus setaceus, Berg. Act. Helv. VII: 130. 1772.

Rynchospora tenerrima, Spreng. Syst. Cur. Post. 26. 1827.

Rynchospora Spermodon, Griseb. Fl. Br. W. I. 576. 1864.

Borders of marshes. Port Antonio (Britton 877); Moore Town (Marble 849). West Indies and tropical South America.

9. RYNCHOSPORA FASCICULARIS (Michx.) Vahl, Enum. II: 234. 1806.

Schoenus fascicularis, Michx. Fl. Bor. Am. I: 37. 1803.

Summit of Bull Head Mountain (Underwood 3364b); previously collected in Jamaica by Purdie. Distribution; Southeastern United States, Cuba, Haiti, Porto Rico.

10. RYNCHOSPORA CEPHALOTES (L.) Vahl, Enum. II: 237. 1806.

Scirpus cephalotes, L. Sp. Pl. Ed. 2, 76, 1762.

Jamaica (Masson, according to Clarke). Tobago; Trinidad; Central and South America.

11. RYNCHOSPORA RARIFLORA, (Michx.) Ell. Bot. S. Car. & Ga. I: 58. 1816.

Schoenus rariflorus, Michx. Fl. Bor. Am. I: 35. 1803.

Bull Head, Clarendon (Hart). The only station known for this species south of the Isle of Pines. Southeastern United States and Cuba.

12. RYNCHOSPORA GLAUCA, Vahl, Enum. II. 233. 1806.

Rynchospora gracilis, R. & S. Syst. II: 85. 1817.

Summit of Bull Head Mountain (Underwood 3364a). Widely distributed in Tropical America.

13. RYNCHOSPORA JUBATA, Liebm. Vidensk. Selsk. Skr. V. 2: 254. 1851.

Rynchospora Marisculus Nees, Linnaea, IX: 297, hyponym. 1834.

Cited from Jamaica by Clarke as collected by Wilson. West Indies and Central and South America.

12. CLADIUM, P. Browne; Crantz, Inst. I: 362. 1766.
Type species, *Cladium jamaicense*, Crantz.

- I. CLADIUM JAMAICENSE, Crantz, Inst. I: 362. 1766.

Cladium occidentale, R. & S. Syst. I: 284. 1817.

Common in coastal marshes. Ferry River (Harris 8632). Common in marshes throughout the West Indies and the southern United States.

Cladium Mariscus (L.) R. Br., of Europe, is in my opinion specifically distinct.

13. SCLERIA, Berg. Vet. Acad. Handl XXVI: 142. 1765.

Type species, *Scleria Flagellum nigrorum*, Berg.

A. Hypogynium present

- a. Margin of the hypogynium neither ciliate nor fimbriate

Ligule large, its margins scarious 1. *S. reflexa*

Ligule short, ovate

Culm spreading, branched 2. *S. secans*

Culm erect

Panicle reddish-purple; achene
purple or purplish

3. *S. melaleuca*

Panicle brown-green; achene
white or whitish

4. *S. pterota*

- b. Margin of the hypogynium ciliate, ciliolate or fimbriate

Achene 2 mm. long or less

5. *S. microcarpa*

Achene 2.5-3 mm. long

Margin of the hypogynium finely
ciliolate or nearly eciliate

6. *S. cubensis*

Margin of the hypogynium densely
long-ciliate

7. *S. Grisebachii*

B. Hypogynium wanting

Inflorescence glomerate-spicate

8. *S. hirtella*

Inflorescence of several loose elongated
clusters

9. *S. lithosperma*

I. SCLERIA REFLEXA, H. B. K. Nov. Gen. & Sp. I: 232. 1815.
Climbing or trailing. Hope (Harris 7084); Port Antonio (Fredholm 3338); summit of Bull Head Mountain (Underwood 3378).
Haiti to Trinidad; Mexico to Brazil.

2. SCLERIA SECANS (L.) Urban, Symb. Ant. II: 169. 1900.

Schoenus secans L. Syst. Ed. 10. 865. 1759.

Scleria Flagellum, Sw. Prodr. 18. 1788.

Scleria Flagellum nigrorum, Berg. Vet. Acad. Handl.
XXVI: 144. 1765.

Jamaica, collected by W. Wright, according to Clarke (Sloane, I: pl. 77, f. 1). Northern South America.

3. SCLERIA MELALEUCA, Schl. & Cham. Linnaea, VI: 29. 1831.

Vicinity of Troy (Maxon 2874); banks, Content Gap (Britton 42); banks near Cold Harbour (Britton 882). West Indies, Central America; Tropical South America.

4. SCLERIA PTEROTA, Presl, in Oken Isis, XXI: 268. 1828.

Scleria pratensis, Nees in Mart. Fl. Bras. II: 179. 1843.

Moist banks and thickets and along streams, frequent at middle elevations. Near Gordon Town (Britton 8); near St. Paul (Marble 701); Troy (Britton 453); summit of Bull Head Mountain (Underwood 3409). Widely distributed in Tropical America.

5. *SCLERIA MICROCARPA*, Nees, *Linnaea*, IX: 302. 1834.

Scleria foliosa, Sauvalle, *Ann. Acad. Habana*, VIII: 154. 1871. Not Rich.

Scleria microcarpa var. *foliosa*, Clarke in Urban, *Symb. Ant.* II: 149. 1900.

Damp field near Port Antonio (Fredholm 3298). Not otherwise known from Jamaica. The var *foliosa*, Clarke, is said to differ from the species in the less ciliate margin of the disk, but this appears to be a very variable character, and I do not regard it as important in this plant. Widely distributed in Tropical America.

6. *SCLERIA CUBENSIS*, Boeckl. *Cyp. Nov.* II: 42. 1890.

Scleria microcarpa, Griseb. *Cat. Pl. Cuba*, 248, 1866 Not Nees.

Scleria microcarpa var. *ciliata*, Clarke in Urban, *Symb. Ant.* II: 149. 1900.

Moist rocky woods, Tyre (Britton 538); apparently not rare. Culms 4 m. long. Cuba; Haiti; Porto Rico.

7. *SCLERIA GRISEBACHII*, Clarke in Urban, *Symb. Ant.* II 151. 1900.

Scleria mitis, Griseb. *Fl. Br. W. I.* 578. 1864. Not Berg. 1765.

Marsh, Port Antonio (Britton 861). Plant 2 m. high. Porto Rico to Martinique.

8. *SCLERIA HIRTELLA*, Sw. *Prodr.* 19. 1788.

Summit of Bull Head Mountain (Underwood 3373); Jamaica Plants No. 2017 in Herbarium Public Gardens. Not otherwise known from Jamaica. Widely distributed in Tropical America.

9. *SCLERIA LITHOSPERMA* (L.) Sw. *Prodr.* 18. 1788.

Scirpus lithospermus, L. *Sp. Pl.* 51. 1753.

Scleria filiformis, Sw. *Prodr.* 19. 1788.

On hillsides in the xerophytic regions. Mona Hill (Britton 372); near Malvern (Britton 1902); Long Mountain (Harris 9510). Widely distributed in both New and Old World tropics.

14. *UNCINIA*, Pers. *Syn.* II: 534. 1807.

Type species, *Carex uncinata*, L.

- I. *UNCINIA HAMATA* (Sw.) Urban, *Symb. Ant.* II: 169. 1900.

Carex hamata, Sw. *Prodr.* 18. 1788.

Uncinia jamaicensis, Pers. *Syn.* II: 534. 1807.

In forests at high elevations. John Crow Peak (Nichols 43); Clyde River Valley below Cinchona (Underwood 438); New Haven Gap (Maxon 2692); Cinchona (Shreve) road to Vinegar Hill (Harris 8435); New Haven Gap to Vinegar Hill (Britton 161). Distribution: Jamaica; Central America to Brazil.

15. *CAREX*, L. *Sp. Pl.* 972. 1753.

Terminal spike all staminate
Perigynium long-beaked
Perigynium beakless

1. *C. Underwoodii*
2. *C. himmulea*

Terminal spike pistillate at base or apex or at both

Spikes linear-cylindric 3. *C. virescens*

Spikes ovoid or oblong

Perigynium glabrous 4. *C. cladostachya*

Perigynium rough-pilose. 5. *C. scabrella*

Type species, *Carex pulicaris*, L.

1. CAREX UNDERWOODII, Britton. Torrey, V: 10. 1905.

Carex hystericina, Clarke in Urban, Symb. Ant. II
159. 1900. Not Schkuhr. 1806.

In sphagnum, Salt Hill Pond (Underwood 158); Petersfield Pond
Guava Ridge (Shreve). Endemic.

2. CAREX HINNULEA, Clarke in Urban, Symb. Ant. II: 159.
1900.

The only specimen known of this species is preserved in the Good-
enough herbarium, and its collector is not recorded.

3. CAREX VIRESCENS, Schkuhr, Riedgr. II: 45. 1806.

This common species of Eastern North America is also represented
in the Goodenough herbarium by a specimen purporting to be
from Jamaica, as recorded by Mr. Clarke.

4. CAREX CLADOSTACHYA, Wahl. Kong. Vet. Acad. Handl.
XXIV: 149. 1803.

On banks and hillsides at high elevations. Cinchona (Shreve):
Morce's Gap (Nichols 26; Britton 179). Mountains of the West
Indies; Mexico to Bolivia.

5. CAREX SCABRELLA, Wahl. Kong. Vet. Acad. Handl. XXIV:
149, 1803.

Grassy banks and thickets. Between Chestervale and Silver Hill
Gap (Britton 350); Mona Hill (Britton 363). Distribution: moun-
tains and hills of Jamaica, Cuba and Haiti.

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