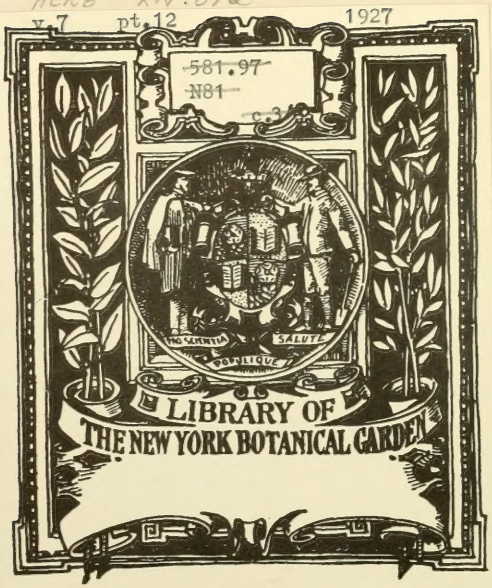
Herb.
XN
.072

HERB XN.072
v.7 pt.12 1927
581.97
N81
c.3



VOLUME 7 PART 12

NORTH AMERICAN FLORA

(UREDINALES)

ADDITIONS AND CORRECTIONS (concluded)

PUBLISHED BY

THE NEW YORK BOTANICAL GARDEN

OCTOBER 26, 1927

FIELD
XN
.072
V.7
PT.12

453. **ALLODUS.**

Add the synonyms: *Linkiella* Sydow, Ann. Myc. **19**: 173. 1921. *Poliomella* Sydow, Ann. Myc. **20**: 122. 1922.

453. In the key.

Replace line 2 by:

Host belonging to family Poaceae.	
Species autoecious.	1. *A. graminella.*
Species heteroecious.	1*a*. *A. interveniens.*

454. **Allodus graminella.**

Add the synonyms: *Aecidium graminellum* Speg. Hongos Sud-am. *29*, hyponym. 1881. *Puccinia graminella chilensis* Neger, Anal. Univ. Chile **93**: 783. 1896.

455. Insert:

1a. **Allodus interveniens** (Peck) Arthur & Orton.

? *Aecidium Modiolae* Thüm. Flora **63**: 31. 1880.
Roestelia interveniens Peck, Bull. Torrey Club **10**: 74. 1883.
Aecidium roestelioides Ellis & Ev. Jour. Myc. **1**: 93. 1885.
Aecidium Modiolae Sphaeralceae P. Henn. Hedwigia **34**: 322, hyponym. 1895.
Aecidium Malvastri P. Henn. Hedwigia **36**: 216. 1897.
Aecidium malvastricola P. Henn.; Sacc. & Sydow, in Sacc. Syll. Fung. **14**: 371. 1899.
Aecidium interveniens Farl. Bibl. Index **1**: 58. 1905.
Aecidium Sphaeralceae Speg. Anal. Mus. Nac. Buenos Aires **19**: 322. 1909. Not *A. Sphaeralceae* Ellis & Ev. 1895.
Aecidium sphaeralceanum Sacc. & Trott. in Sacc. Syll. Fung. **21**: 756. 1912.
Puccinia interveniens Bethel; Blasdale, Univ. Calif. Publ. Bot. **7**: 119. 1919.
Dicaeoma interveniens Arth. & Fromme, N. Am. Flora **7**: 299. 1920.

O and I. Pycnia, aecia, and hosts under Malvaceae, as given on page 300.

III. Telia epiphyllous, scattered, early naked, very large and prominent, oblong-linear or fusiform, 5–20 mm. long, or longer, by 1–2 mm. broad, dark chestnut-brown, the epidermis rupturing in shreds full length of the sorus; teliospores oblong or fusiform-oblong, less often ellipsoid, 23–29 by 35–58 μ, obtuse or rounded at both ends, not constricted at septum; wall light golden- or chestnut-brown, in some spores darker, 3 μ thick, much thicker above, 6–10 μ, smooth; pedicel colorless, once to thrice length of spore.

ON POACEAE:
Stipa comata Trin. & Rupr. (*S. Tweedyi* Scribn.), Colorado.
Stipa lepida Hitchc., California.
Stipa lepida Andersoni (Vasey) Hitchc. (*S. eminens Andersoni* Vasey), California.
Stipa Lettermani Vasey, Colorado.
Stipa minor (Vasey) Scribn., Colorado, Utah.
Stipa pulchra Hitchc., California.
Stipa speciosa Trin. & Rupr., Arizona, California.
TYPE LOCALITY: Lower California, on *Malvastrum Thurberi.*
DISTRIBUTION: Western Nebraska to southern Idaho and northwestern Mexico; also in South America.
EXSICCATI: Barth. Fungi Columb. *2404, 3201;* Barth. N. Am. Ured. *206, 1937, 2102 2450, 2604, 2605, 2606;* Clements, Crypt. Form. Colo. *600;* Garrett, Fungi Utah. *193.*

455. **Allodus Calochorti.**

Add the host: *Calochortus eurocarpus* S. Wats., Idaho.
Add the exsiccati: Barth. N. Am. Ured. *3201.*

456. **Allodus Dichelostemmae.**

Add the host: *Hookera Douglasii* (S. Wats.) Piper, Washington.
Add the illustration: Sydow, Monog. Ured. **1**: *pl. 35, f. 474.*

457. **Allodus claytoniata.**

Add the host: *Claytonia megarrhiza* (A. Gray) Parry, Colorado.

457. **Allodus gigantispora.**

Add the synonym: *Linkiella gigantispora* Sydow, Ann. Myc. **19**: 173. 1921.

458. **Allodus opposita.**

Insert the synonyms: *Puccinia opposita* Arth. Bull. Torrey Club **48**: 33. 1921. *Linkiella opposita* Sydow, Ann. Myc. **19**: 173. 1921.
Add the exsiccati: Barth. N. Am. Ured. *3303.*

458. **Allodus Podophylli.**

Add the exsiccati: Sydow, Monog. Ured. *2579.*

459. **Allodus arabicola.**

Add the synonym: *Dicaeoma arabicola* Kuntze, Rev. Gen. **3**[3]: 467. 1898.
Add: ILLUSTRATION: Holway, N. Am. Ured. **1**: *pl. 52, f. 168c.*

459. **Allodus consimilis.**

Add the illustration: Sydow, Monog. Ured. **1**: *pl. 30, f. 417.*

460. **Allodus effusa.**

Add the host: *Viola purpurea* Kellogg, California.
Add the exsiccati: Vesterg. Micr. Rar. Sel. *1277.*

461. **Allodus Jussiaeae.**

Add the synonym: *Lindrothia Jussiaeae* Sydow, Ann. Myc. **20**: 119. 1922.

462. **Allodus microica.**

Add the illustration: Sydow, Monog. Ured. **1**: *pl. 25, f. 347.*

462. **Allodus Erigeniae.**

Insert the synonym: *Puccinia Erigeniae* Arth. Bull. Torrey Club **48**: 33. 1921.
Add the exsiccati: Barth. N. Am. Ured. *2902.*

463. **Allodus Jonesii.**

Omit, among the hosts, " South Dakota " after *Musineon divaricatum.*
Add the hosts:

Aulospermum longipes (S. Wats.) Coult. & Rose (*Cymopterus longipes* S. Wats.), Utah.
Cogswellia ambigua (Nutt.) M. E. Jones (*Peucedanum ambiguum* Nutt.), Wyoming.
Cogswellia Gormani (Howell) M. E. Jones (*Peucedanum Gormani* Howell, *Lomatium Gormani* Coult. & Rose), Washington.
Drudeophytum Parishii Coult. & Rose, California.
Eurytera parvifolia (Hook. & Arn.) Coult. & Rose, California.
Pseudopteryxia anisata (A. Gray) Rydb. (*Cymopterus anisatus* A. Gray, *Pseudocymopterus anisatus* Coult. & Rose), Utah.
Pteryxia foeniculacea Nutt. (*Cymopterus foeniculaceus* T. & G.), Wyoming.

Add the illustration: Sydow, Monog. Ured. **1**: *pl. 24, f. 337.*
Add the exsiccati: Barth. N. Am. Ured. *2607, 3203, 3205.*

464. **Allodus melanconioides.**

Insert: ILLUSTRATION: Holway, N. Am. Ured. **1**: *pl. 45, f. 144.*

465. **Allodus Swertiae.**

Add the synonym: *Aecidium Fraseri* Trel. Harriman Alaska Exp. Crypt. 36. 1904.
Add the illustration: Holway, N. Am. Ured. **1**: *pl. 46, f. 149.*

466. **Allodus crassipes.**

Add the synonym: *Puccinia Ipomoeae-panduratae* Sydow, Monog. Ured. **1**: 323. 1902.
Add the hosts:

Ipomoea microsticta Hallier, Salvador.
Ipomoea parasitica G. Don, Salvador.

Insert: ILLUSTRATIONS: Mém. Soc. Neuch. Sci. Nat. **5**: 488. *f. 22;* Sydow, Monog. Ured. **1**: *pl. 22, f. 312;* Holway, N. Am. Ured. **1**: *pl. 49, f. 158.*
Add the exsiccati: Barth. N. Am. Ured. *2701.*

466. **Allodus megalospora.**
Add the synonym: *Puccinia megalospora* Sacc. & Trott.; Sacc. Syll. Fung. **23**: 713. 1925.
Insert: ILLUSTRATION: Holway, N. Am. Ured. **1**: *pl. 50, f. 160.*

467. **Allodus insignis.**
Add: ILLUSTRATION: Holway, N. Am. Ured. **1**: *pl. 50, f. 163.*

467. **Allodus nocticolor.**
Insert: ILLUSTRATION: Holway, N. Am. Ured. **1**: *pl. 50, f. 159.*
Add the exsiccati: Sydow, Monog. Ured. *2623.*

467. **Allodus superflua.**
Add: ILLUSTRATION: Holway, N. Am. Ured. **1**: *pl. 50, f. 162.*

468. **Allodus rubicunda.**
Add: ILLUSTRATION: Holway, N. Am. Ured. **1**: *pl. 50, f. 161.*

468. **Allodus Giliae.**
Insert: ILLUSTRATIONS: Sydow, Monog. Ured. **1**: *pl. 21, f. 304;* Holway, N. Am. Ured. **1**: *pl. 50, f. 164; pl. 51, f. 167a, b; pl. 52, f. 167c, 168a, b, d.*
Add the exsiccati: Barth. N. Am. Ured. *2602, 2603, 2903, 2904.*

469. **Allodus Douglasii.**
Add the synonym: *Lindrothia Douglasii* Sydow, Ann. Myc. **20**: 119. 1922.
Add the host: *Leptodactylon pungens* (Torr.) Nutt. (*Gilia pungens* Benth.), California.
Insert: ILLUSTRATIONS: Sydow, Monog. Ured. **1**: *pl. 21, f. 306, 307;* Holway, N. Am. Ured. **1**: *pl. 51, f. 166 a–c.*
Add the exsiccati: Barth. N. Am. Ured. *2601.*

470. **Allodus yosemitana.**
Add the synonym: *Lindrothia yosemitana* Sydow, Ann. Myc. **20**: 119. 1922.
Add the host: *Leptodactylon pungens* (Torr.) Nutt. (*Gilia pungens* Benth.), Colorado.
Add: EXSICCATI: Barth. N. Am. Ured. *2608.*

470. **Allodus mellifera.**
Change the generic name of the hosts from "*Audibertella*" to "*Audibertiella*," and add:

Audibertiella humilis (Benth.) Briq. (*Audibertia humilis* Benth., *Salvia sonomensis* Greene), California.
Audibertiella nivea (Benth.) Briq. (*Audibertia nivea* Benth., *Ramona nivea* Briq.), California.

Insert: ILLUSTRATION: Sydow, Monog. Ured. **1**: *pl. 19, f. 274.*
Add the exsiccati: Barth N. Am. Ured. *2403, 3003, 3206, 3301, 3302.*

471. **Allodus Chamaesarachae.**
Insert: ILLUSTRATION: Sydow, Monog. Ured. **1**: *pl. 17, f. 247.*
Add the exsiccati: Barth. N. Am. Ured. *2401.*

472. **Allodus complicata.**
Add the hosts:

Penstemon antirrhinoides Benth., Arizona.
Penstemon venustus Dougl., Washington.

Insert: ILLUSTRATION: Sydow, Monog. Ured. **1**: *pl. 16, f. 238.*
Add the exsiccati: Barth. N. Am. Ured. *3059, 3060.*

472. **Allodus rufescens.**
Insert: ILLUSTRATION: Sydow, Monog. Ured. **1**: *pl. 16, f. 235.*

473. **Allodus scaberistipes.**
Insert: ILLUSTRATION: Sydow, Monog. Ured. **1**: *pl. 45, f. 575.*

473. **Allodus ambigua.**
Insert: ILLUSTRATION: Grove, Brit. Rust Fungi *f. 118.*
Add the exsiccati: Barth. N. Am. Ured. *2901.*

473. **Allodus commutata.**
Omit the hosts: *Valeriana acutiloba, V. edulis, Valerianella congesta.*

474. **Allodus intermixta.**
Add the exsiccati: Barth. N. Am. Ured. *2402, 2702, 2905, 3202.*

474. **Allodus tenuis.**
Add the synonym: *Linkiella tenuis* Sydow, Ann. Myc. **19**: 173. 1921.
Insert: ILLUSTRATION: Sydow, Monog. Ured. **1**: *pl. 5, f. 69.*
Add the exsiccati: Barth. N. Am. Ured. *3402;* Thaxter, Rel. Farl. *273a, b.*

475. **Allodus Batesiana.**
Add the synonym: *Linkiella Batesiana* Sydow, Ann. Myc. **19**: 173. 1921.

475. **Allodus gnaphaliata.**
Insert: ILLUSTRATION: Sydow, Monog. Ured. **1**: *pl. 5, f. 77.*
Add the exsiccati: Barth. N. Am. Ured. *3001, 3002;* Thaxter, Rel. Farl. *258.*

476. **Allodus Desmanthodii.**
Add the synonym: *Lindrothia Desmanthodii* Sydow, Ann. Myc. **19**: 173. 1921.
Insert: ILLUSTRATION: Sydow, Monog. Ured. **1**: *pl. 4, f. 58.*

476. **Allodus Ancizari.**
Add the synonym: *Poliomella Ancizari* Sydow, Ann. Myc. **20**: 122. 1922.

477. **Allodus subcircinata.**
Add the exsiccati: Brenckle, Fungi Dak. *503.*

477. **KLEBAHNIA.**
Insert the synonym: *Argomycetella* Sydow, Ann. Myc. **20**: 124. 1922.

478. **Klebahnia Glycyrrhizae.**
Add the exsiccati: Barth. N. Am. Ured. *2488, 2882, 2988.*

479. **Klebahnia hyalina.**
Add the exsiccati: Barth. N. Am. Ured. *3386.*

480. **Klebahnia dolichospora.**
Add the synonym: *Argomycetella dolichospora* Sydow, Ann. Myc. **20**: 124. 1922.
Add the host: *Tournefortia peruviana* Poir., Costa Rica.
Insert: ILLUSTRATION: Sydow, Monog. Ured. **2**: *pl. 2, f. 29.*

480. **Klebahnia pressa.**
Add the synonym: *Argomycetella pressa* Sydow, Ann. Myc. **20**: 124. 1922.

481. **Klebahnia Bidentis.**
Add the host: *Bidens cynapiifolia* H.B.K., Porto Rico.
Add the exsiccati: Barth. N. Am. Ured. *3487.*

489. **Bullaria Hydrocotyles.**
Omit, among the hosts, Porto Rico after *Hydrocotyle australis.*
Add the exsiccati: Barth. N. Am. Ured. *3153, 3487.*

491. **Bullaria Cynomarathri.**
Add the host: *Sphenosciadium capitellatum* (Benth. & Hook.) A. Gray (*Selinum capitellatum* Benth. & Hook.), California.

492. **Bullaria Vincae.**
Add to the type locality: "on *Vinca major.*"

492. **Bullaria Cordiae.**
Add: ILLUSTRATION: Holway, N. Am. Ured. 1: *pl. 53, f. 173.*

493. **Bullaria impedita.**
Add the hosts:
Salvia rubiginosa Benth., Salvador.
Salvia occidentalis Sw., Santo Domingo.

495. **Bullaria tumidipes.**
Add the exsiccati: Barth. N. Am. Ured. *3075.*

496. **Bullaria insulana.**
Add the host: *Vernonia racemosa* Delponte, Santo Domingo.

496. **Bullaria Arthuriana.**
In the citation for *Puccinia Arthuriana*, read "295," not "395."

497. **Bullaria fuscella.**
Add the host: *Vernonia Sprengeliana* Schultz-Bip., Santo Domingo.

497. **Bullaria Vernoniae.**
Add the exsiccati: Barth. N. Am. Ured. *2571, 2685, 2780, 3273.*

500. **Bullaria (?) Conoclinii.**
Add the exsiccati: Barth. N. Am. Ured. *2837, 3038, 3238.*

503. **Bullaria Kuhniae.**
Add the host: *Kuhnia reticulata* A. Nelson, Montana.
Add the exsiccati: Barth. N. Am. Ured. *2950, 3254.*

506. **Bullaria Balsamorhizae.**
Add the exsiccati: Barth. N. Am. Ured. *2933, 3131.*

507. **Bullaria Enceliae.**
Add the host: *Simsia grandiflora* (Hemsl.) Benth. (*Encelia grandiflora* Hemsl.), Salvador; Panama.

508. **Bullaria Absinthii.**
Add the host: *Artemisia pabularis* (A. Nelson) Rydb., South Dakota.
Add the exsiccati: Barth. N. Am. Ured. *2529, 2643, 2734, 2823, 2824, 2925, 3026, 3221;* Brenckle, Fungi Dak. *561.*

509. **Bullaria Cirsii.**
Add the host: *Cirsium muticum* Michx. (*Carduus muticus* Pers.), Connecticut.
Add the exsiccati: Barth. N. Am. Ured. *2833, 3037, 3134, 3235, 3339.*

512. **Bullaria Bardanae.**
Add the exsiccati: Barth. N. Am. Ured. *2650, 2740, 2830, 2831, 3337;* Brenckle, Fungi Dak. *517.*

513. **Bullaria Hieracii.**
In the citation for *Puccinia Hieracii*, for "226. 1812" read "ed. 2. 226. 1817."
Add the hosts:
Leontodon lyratus Ledeb. (*Taraxacum alaskanum* Rydb.), Alaska.
Hieracium scabriusculum Schw., Manitoba.
Add the exsiccati: Barth. N. Am. Ured. *2564, 2663, 2852, 2853, 2947, 2948, 3139, 3151, 3152, 3252, 3253.*

516. **Teleutospora heteroderma.**
Add the host: *Erythronium giganteum* Lindl., Washington.

517. **Teleutospora abbreviata.**
Add the exsiccati: Barth. N. Am. Ured. *3377*.

517. **Teleutospora Tranzschelii.**
Add the exsiccati: Barth. N. Am. Ured. *3197*, *3399*.

519. **Teleutospora Rudbeckiae.**
Add the illustration: Jour. Coll. Agr. Hokkaido Univ. **11**: *pl. 7, f. 3.*

520. **MICROPUCCINIA.**
Insert after the last synonym: Not *Trailia* Sutherland, 1914.

521. In the key.
Replace line 9 by:

Teliospore-wall noticeably verrucose.	
Verrucose markings scattered.	17. *M. Ranunculi.*
Verrucose markings dense.	17*a*. *M. retecta.*

522. In the key.
For "96. *M. solanitum*" read "96. *M. Solani.*"

523. In the key.
Replace line 15 by:

Host belonging to family Campanulaceae.	
Teliospores oblong, with obtuse apex.	118. *M. Campanulae.*
Teliospores ellipsoid, with rounded apex.	118*a*. *M. Nova-Zembliae.*

525. **Micropuccinia ornata.**
Add to the distribution: also in eastern Russia.

526. **Micropuccinia Arenariae.**
In the synonymy, for "*Puccinia Lychnites*" read "*Uredo Lychnitis.*"
Add the host: *Alsine borealis* (Bigel.) Britton (*Stellaria borealis* Bigel.), Washington.

529. **Micropuccinia gemella.**
Add the exsiccati: Barth. N. Am. Ured. *3458*.

530. Insert:

17a. **Micropuccinia retecta** (Sydow) Arthur and Jackson.

Puccinia retecta Sydow, Ann. Myc. **1**: 34. 1903.
Polythelis retecta Arth. Résult. Sci. Congr. Bot. Vienne 341. 1906.

Description and other data as given on page 152, under *Polythelis retecta*, with Alaska added after the host.
Add the host: *Anemone lithophila* Rydb., Wyoming.

531. **Micropuccinia Brandegei.**
Add the host: *Capnoides Scouleri* (Hook.) Kuntze (*Corydalis Scouleri* Hook.), Washington.

531. **Micropuccinia Drabae.**
Add the host: *Draba aurea* Vahl, Alaska.

532. **Micropuccinia Holboellii.**
Add the hosts:
Arabis oreophylla Rydb., Wyoming.
Arabis pendulocarpa A. Nelson, Wyoming.
Omit "Ellis, N. Am. Fungi," and transfer "*1834*" to Ellis & Ev. N. Am. Fungi.

535. **Micropuccinia Heucherae.**
Add the hosts:
Heuchera Richardsonii R. Br., Manitoba.
Mitella caulescens Nutt., Washington.
Add the exsiccati: Barth. N. Am. Ured. *3465*.

536. **Micropuccinia curtipes.**
Add the hosts:

Micranthes integrifolia (Hook.) Small (*Saxifraga integrifolia* Hook.), British Columbia.
Micranthes oregana (Howell) Small (*Saxifraga oregana* Howell), Washington.
Micranthes rhomboidea (Greene) Small (*Saxifraga rhomboidea* Greene), Wyoming.

539. **Micropuccinia Parkerae.**
Add the host: *Grossularia divaricata* (Dougl.) Cov. & Britt. (*Ribes divaricatum* Dougl.), British Columbia.

540. **Micropuccinia Waldsteiniae.**
Add the exsiccati: Barth. N. Am. Ured. *3275.*

540. **Micropuccinia Leveillei.**
Add the host: *Geranium erianthum* DC., Alaska; and change "*Geranium* sp." to "*Geranium Fremontii* T. & G."

540. **Micropuccinia Pyrolae.**
Add the exsiccati: Barth. N. Am. Ured. *3065.*

541. **Micropuccinia Arechavaletae.**
Add the hosts:

Serjania caracasana (Jacq.) Willd., Guatemala.
Serjania trifoliolata Radlk., Salvador.

542. **Micropuccinia Malvacearum.**
Add the synonym: *Puccinia Sidae-rhombifoliae* Mayor, Mém. Soc. Neuch. Sci. Nat. **5**: 484. 1913.
Add the illustration: Mém. Soc. Neuch. Sci. Nat. **5**: 485. *f. 20.*
Add the exsiccati: Barth. N. Am. Ured. *2951, 3052.*

543. **Micropuccinia Sherardiana.**
Interchange the words "autoecious" and "heteroecious" in the note following the diagnosis.
Add the exsiccati: Barth. N. Am. Ured. *3364, 3477.*

544. **Micropuccinia heterospora.**
Add the synonym: *Uredo Anodae* Lév. Ann. Sci. Nat. III. **3**: 70. 1845.
Add the hosts:

Abutilon Calderoni Standl., Salvador.
Abutilon umbellatum (L.) Sweet, Porto Rico.
Althea rosea Cav., Kansas.
Anoda cristata (L.) Schlecht., Salvador.
Bastardia viscosa (L.) H.B.K. (*Sida foetida* Cav.), Santo Domingo.
Malvaviscus palmanus Pitt. & Donn. Sm., Costa Rica.
Sida angustifolia Lam., Salvador.

Add the exsiccati: Barth. N. Am. Ured. *2851.*

546. **Micropuccinia Anodae.**
Add the host: *Anoda cristata* (L.) Schlecht., Costa Rica.

547. **Micropuccinia hiascens.**
Change the volume-citation for *Puccinia hiascens* from **46** to **47.**

548. **Micropuccinia Circaeae.**
Add the exsiccati: Barth. N. Am. Ured. *3454.*

549. **Micropuccinia Fuchsiae.**
Add the host: *Fuchsia parviflora* Zucc., Salvador.

552. **Micropuccinia Ligustici.**
In the paragraph following the description, for "*Bistortae* (DC.) Kuntze" read "*Polygoni-vivipari* (H. Dietr.) Arth."

Add the host: *Cogswellia Geyeri* (S. Wats.) M. E. Jones (*Peucedanum Geyeri* S. Wats.), Idaho.

Add the exsiccati: Barth. N. Am. Ured. *3204*.

553. **Micropuccinia porphyrogenita.**

Add the exsiccati: Barth. N. Am. Ured. *2959*.

553. **Micropuccinia Dayi.**

Add the illustration: Holway, N. Am. Ured. **1**: *pl. 45, f. 146*.

Add the exsiccati: Rab.-Wint. Fungi Eur. *3206*.

554. **Micropuccinia Haleniae.**

Add to the distribution: also in Manchuria.

Insert: ILLUSTRATION: Holway, N. Am. Ured. **1**: *pl. 46, f. 148*.

554. **Micropuccinia concrescens.**

In the synonymy, for "*P. compata* Berk." read "*P. compacta* Berk."

Add the illustration: Holway, N. Am. Ured. **1**: *pl. 46, f. 150*.

555. **Micropuccinia obliqua.**

Add the synonyms: *Puccinia subcollapsa* Ellis, Jour. Myc. **7**: 275. 1893. *Dicaeoma subcollapsum* Kuntze, Rev. Gen. **3**[3]: 470. 1898. *Puccinia Oxypetali* P. Henn. Hedwigia Beibl. **38**: 129. 1899.

Add the hosts:

Macroscepis congestiflora Donn. Sm., Salvador.
Vincetoxicum suberosum (L.) Britton (*Gonolobus suberosus* R. Br.), South Carolina.

Add the illustrations: Holway, N. Am. Ured. **1**: *pl. 46, f. 151a, b; pl. 47, f. 151c, d, f. 152a–d; pl. 48, f. 152e, f*.

556. **Micropuccinia Dichondrae.**

Add the illustration: Holway, N. Am. Ured. **1**: *pl. 49, f. 156*.

556. **Micropuccinia Polemonii.**

Add to the distribution: also Norway and Finland.

Add: ILLUSTRATION: Holway, N. Am. Ured. **1**: *pl. 52, f. 169*.

557. **Micropuccinia Hydrophylli.**

Insert: ILLUSTRATION: Holway, N. Am. Ured. **1**: *pl. 53, f. 171*.

Add the exsiccati: Vesterg. Micr. Rar. Sel. *968*.

557. **Micropuccinia Phaceliae.**

Insert: ILLUSTRATION: Holway, N. Am. Ured. **1**: *pl. 53, f. 172*.

558. **Micropuccinia Heliotropii.**

Add: ILLUSTRATION: Holway, N. Am. Ured. **1**: *pl. 53, f. 175*.

558. **Micropuccinia Mertensiae.**

Add the hosts:

Lappula floribunda (Lehm.) Greene, Utah.
Mertensia coronata A. Nelson, Wyoming.

Insert: ILLUSTRATION: Holway, N. Am. Ured. **1**: *pl. 54, f. 176*.

Add the exsiccati: Vesterg. Micr. Rar. Sel. *970*.

558. **Micropuccinia Urbaniana.**

Add the host: *Cornutia pyramidata* L., Salvador; Santo Domingo.

Add the illustration: Holway, N. Am. Ured. **1**: *pl. 54, f. 181*.

559. **Micropuccinia Lantanae.**

Add the illustration: Holway, N. Am. Ured. **1**: *pl. 54, f. 178*.

562. **Micropuccinia Physalidis.**

Add the exsiccati: Barth. N. Am. Ured. *3261*.

562. **Micropuccinia solanita.**

Reduce this name to synonymy, and substitute: **Micropuccinia Solani** (Schw.) Arthur & Jackson.

Insert the synonyms: *Puccinia Solani* Schw.; Berk. & Curt. Jour. Acad. Phila. II. **2**: 281. 1853. *Puccinia Solani-tristis* P. Henn. Hedwigia **35**: 236. 1896. *Puccinia solanicola* Mayor, Mém. Soc. Neuch. Sci. Nat. **5**: 505. 1913.

Add to the description this paragraph:

The species is correlated with the heteroecious species, *Dicaeoma tubulosum* (Pat. & Gaill.) Arth., the telia being morphologically similar, and the hosts agreeing with the aecial hosts of the heteroecious species.

Add the host: *Solanum diversifolium* Schlecht., Panama.

Add the illustration: Mém. Soc. Neuch. Sci. Nat. **5**: 506. *f. 34.*

563 **Micropuccinia Sarachae.**

Add the host: *Saracha antillana* Krug. & Urban, Jamaica.

563. **Micropuccinia acrophila.**

Add the hosts:

Besseya alpina (A. Gray) Rydb. (*Synthyris alpina* A. Gray), Wyoming.
Syntheris dissecta Rydb., Wyoming.

565. **Micropuccinia Seymeriae.**

Change the second word in the first line of hosts to read "*Besseyana.*"

568. **Micropuccinia rubefaciens.**

Add the host: *Galium Bloomeri* A. Gray, California.

Add the exsiccati: Barth. N. Am. Ured. *3068*, *3163.*

568. **Micropuccinia lateritia.**

Omit the host: *Diodia littoralis*, and add *Borreria tenella* (H.B.K.) Cham. & Schlecht., Salvador.

Add the exsiccati: Barth. N. Am. Ured. *3154*, *3255*, *3468.*

571. **Micropuccinia Campanulae.**

Omit the host: *Campanula uniflora.*

571. Insert:

118a. **Micropuccinia Nova-Zembliae** (Jørstad) Arthur.

Puccinia Nova-Zembliae Jørstad, Rep. Sci. Res. Norw. Exped. Nov. Zemlya 18: 6. 1923.

O. Pycnia unknown.

III. Telia amphigenous, petiolicolous, or caulicolous, scattered or somewhat confluent, round, 0.4–0.8 mm. in diameter, tardily naked, moderately pulverulent, chestnut-brown, ruptured epidermis conspicuous; teliospores ellipsoid, 14–22 by 25–33 μ, rounded above, rounded or somewhat narrowed below, slightly or not constricted at septum; wall chestnut-brown, moderately thin, 1.5–2.5 μ, thicker above, 4–7 μ, with a broad umbo, smooth; pedicel colorless, delicate, short, usually deciduous.

ON CAMPANULACEAE:
Campanula uniflora L., Greenland.
TYPE LOCALITY: Belushii Bay, Nova Zembla, on *Campanula uniflora.*
DISTRIBUTION: Greenland; also in northern Europe.

571. **Micropuccinia Lobeliae.**

Add the exsiccati: Barth. N. Am. Ured. *3051.*

571. **Micropuccinia Xanthii.**

Add the hosts:

Xanthium oviforme Wallr., South Dakota.
Xanthium speciosum Kearney, Montana, South Dakota.

Add the exsiccati: Barth. N. Am. Ured. *2781*, *2782*, *2873*, *2975*, *3080*, *3081*, *3082*, *3083*, *3276*, *3277*, *3480;* Brenckle, Fungi Dak. *567.*

574. **Micropuccinia Virgaureae.**
Add the synonym: *Puccinia Virgaureae* Corda, Ic. Fung. **4**: 14. 1840.

575. **Micropuccinia Asteris.**
Add the synonym: *Puccinia suffulta* Berk. & Curt. Grevillea **3**: 55. 1874.
Add the hosts:
Aster frondeus (A. Gray) Greene, Montana.
Aster gracilis Nutt., Georgia.
Aster junciformis Rydb., Alberta.
Add the exsiccati: Barth. N. Am. Ured. *2827*, *2828*, *2931*, *3032*, *3226*, *3450;* Brenckle, Fungi Dak. *562*.

576. **Micropuccinia Grindeliae.**
Add the synonym: *Puccinia Solidaginis-mollis* Dietel, Ann. Myc. **4**: 308. 1906.
Among the hosts, for "*Erigeron filiformis*" read "*Erigeron filifolius.*"
Add the hosts:
Solidago missouriensis Nutt., Washington.
Stenotus acaulis Nutt. (*Aplopappus acaulis* A. Gray), Wyoming.
Add the exsiccati: Barth. N. Am. Ured. *2775*, *3044*, *3045*, *3046*, *3143*, *3247*, *3349*, *3350*.

580. **Micropuccinia Rudbeckiae.**
Under exsiccati, supply the number: *2862*.

581. **Micropuccinia Silphii.**
Add the host: *Silphium asperrimum* Hook., Texas.
Add the exsiccati: Barth. N. Am. Ured. *2965*.

581. **Micropuccinia Melampodii.**
Add the synonym: *Puccinia Wedeliae* Mayor, Mém. Soc. Neuch. Sci. Nat. **5**: 528. 1913.
Add the illustrations: Mém. Soc. Neuch. Sci. Nat. **5**: 528. *f. 46;* 529. *f. 47*.

582. **Micropuccinia Millefolii.**
Add the hosts:
Achillea borealis Bong., Alaska.
Artemisia Purshiana Besser, South Dakota.
Add the exsiccati: Barth. N. Am. Ured. *2836*, *2953*.

583. **Micropuccinia expansa.**
Add the host: *Senecio dimorphophyllus* Greene, Wyoming.

585. **Micropuccinia Suksdorfii.**
Change the second synonym to read "*Dicaeoma Suksdorfii*," not "*Caeomurus Suksdorfii*."
After *Agoseris* sp. for "Wyoming" read "Nevada."
Add the exsiccati: Barth. N. Am. Ured. *3171*.

585. **Micropuccinia Fraseri.**
Add the exsiccati: Barth. N. Am. Ured. *3345*.

586. PUCCINIA SUFFULTA.
The species is now referred to *Micropuccinia Asteris* (Duby) Arth. & Jackson, and the host is determined as *Aster gracilis* Nutt.

586. Insert, before "Form-Genera":

38. DESMELLA Sydow, Ann. Myc. **16**: 241. 1918.

Cycle of development incompletely known, only uredinia and telia recognized, both subepidermal, usually forming beneath the stomata and protruding in tufts, appearing superficial; probably heteroecious.

Uredinia without peridium or paraphyses. Urediniospores borne singly on pedicels, globoid; wall somewhat colored, echinulate, the pores two to several, equatorial or scattered.

Telia without peridium or paraphyses. Teliospores two-celled; wall somewhat colored, firm, smooth, the pores one in each cell, either apical or in upper part of each cell.

Type species, *Uredo Aneimiae* P. Henn. (on *Aneimia* sp.).

1. **Desmella superficialis** (Speg.) Sydow, Ann. Myc. **16**: 242. 1918.

Caeoma superficialis Speg. Anal. Soc. Ci. Argent. **17**: 96. 1884.
Uredo superficialis De-Toni, in Sacc. Syll. Fung. **7**: 865. 1888.
Uredo Gymnogrammes P. Henn. Hedwigia **34**: 337. 1895.
Uredo blechnicola P. Henn. Hedwigia **43**: 165. 1904.
Uredo Nephrolepidis Dietel; Mayor, Mém. Soc. Neuch. Sci. Nat. **5**: 576. 1913.
Desmella Gymnogrammes Sydow, Ann. Myc. **16**: 242. 1918.

II. Uredinia hypophyllous, scattered, round, minute, 0.1–0.3 mm. in diameter, pulverulent, yellow fading to white, ruptured epidermis inconspicuous, usually protruding through the stomata in tufts for about one half length of pedicels, appearing superficial; urediniospores globoid or somewhat obovoid, 18–24 by 21–28 μ; wall very pale-yellow, 1–2.5 μ thick, sparsely and evenly echinulate, the pores obscure, probably 4 and equatorial.

III. Telia unknown.

ON POLYPODIACEAE:
Adiantum latifolium Lam., Porto Rico.
Dennstaedtia rubiginosa (Kaulf.) Moore, Porto Rico.
Dryopteris dentata (Forsk.) C. Chr. (*D. mollis* Hieron.), Porto Rico.
Dryopteris l'Herminieri (Kunze) C. Chr., Grenada.
Dryopteris patens (Sw.) Kuntze, Jamaica.
Dryopteris Poiteana (Bory) Urban, Porto Rico.
Dryopteris subtetragona (Link) Maxon (*D. tetragona* Urban), Porto Rico.
Pityrogramma calomelanos (L.) Link (*Gymnogramma calomelanos* Kaulf.), Cuba; Porto Rico.
Tectaria martinicensis (Spreng.) Copeland, Porto Rico.
ON SCHIZAEACEAE:
Aneimia hirsuta (L.) Sw., Jamaica.
TYPE LOCALITY: Near Mbatobi, Paraguay, on *Blechnum* sp.
DISTRIBUTION: West Indies; also in South America.
ILLUSTRATION: Mém. Soc. Neuch. Sci. Nat. **5**: 577, *f. 83*.

39. DASYSPORA Berk. & Curt. Jour. Acad. Phila. **2**: 281. 1853.

(Not *Dasyspora* Arth. 1906.)

Cycle of development includes pycnia, aecia, and telia; autoecious. Pycnia and telia subepidermal, aecia hyphoid, seemingly superficial.

Pycnia globoid-hemispheric; ostiolar filaments short or wanting.

Aecia without definite sori, the fertile hyphae in tufts protruding above the epidermis, sympodially branched, colorless. Aeciospores borne singly on short pedicels, globoid or ellipsoid; wall colorless, finely verrucose, the pores indistinct.

Telia erumpent, definite. Teliospores pedicelled, free, two-celled; wall colored, firm, verrucose, most strongly at opposite ends, the pores uncertain.

Type species, *Dasyspora foveolata* Berk. & Curt. (on *Xylopia* sp.).

1. **Dasyspora foveolata** (Schw.) Berk. & Curt. Jour. Acad. Phila. **2**: 281. 1853.

Aecidium foveolatum Schw.; Berk. & Curt. Jour. Acad. Phila. **2**: 281, as synonym. 1853.
Puccinia compacta Thüm. Flora **1875**: 364. 1875. Not *P. compacta* Berk. 1855.
Puccinia Winteri Paz. Hedwigia **29**: 158. 1890.
Puccinia foveolata P. Henn. Hedwigia **34**: 95. 1895.
Puccinia gregaria Kunze; P. Henn. Hedwigia **35**: 230. 1896.
Oidium paraviticum Kunze; P. Henn. Hedwigia **35**: 231, as synonym. 1896.
Dicaeoma Winteri Kuntze, Rev. Gen. **3**[3]: 471. 1898.

O. Pycnia epiphyllous, crowded in small groups 0.5–2 mm. across, opposite the uredinia, mammilliform, prominent, becoming dark-brown, in section globoid-hemispheric, 130–190 μ broad; ostiolar filaments short, scarcely or not exserted.

I. Aecia hypophyllous, in radiating mold-like areas 1–3 mm. across, or up to 8 mm. along the leaf-midrib, without a distinct hymenium, the fertile hyphae protruding through the stomata and rising above the leaf-surface 100–150 μ in sympodially branched tufts, snowy-white, becoming dirty-white with age; aeciospores broadly ellipsoid, 14–18 by 25–27 μ; wall colorless, 1–1.5 μ thick, with a thicker ring at the hilum, granulose-verrucose below, becoming tuberculate-verrucose above.

III. Telia hypophyllous, crowded in groups 2–8 mm. across, early naked, chestnut-brown, becoming pulverulent, ruptured epidermis noticeable; teliospores broadly ellipsoid or oblong, 19–23 by 26–30 μ exclusive of appendages, rounded above and below, somewhat constricted at septum; wall chestnut-brown, uniformly 1.5–2.5 μ thick, coarsely tuberculate on sides, gradually merging into filiform appendages at each end, 6–8 μ long; pedicel colorless, fragile, as long as spore or shorter.

ON ANNONACEAE:
Xylopia frutescens Aubl., Costa Rica.
Xylopia grandiflora St. Hil., Panama.
Xylopia sp., Guatemala.
TYPE LOCALITY: Surinam, on "living leaves" [*Xylopus* sp.].
DISTRIBUTION: Eastern Guatemala to Panama; also in South America.
ILLUSTRATIONS: Jour. Acad. Phila. **2**: *pl. 25, f. 5;* Ber. Deuts. Bot. Ges. **10**: 196; Mycologia **17**: 260, *f. 1.*

587. In the key.

Replace line 6 by:

Teliospores globoid.	
Teliospore-wall thicker above.	4. *U. Sabineae.*
Teliospore-wall uniformly thick.	4a. *U. punctiformis.*

Insert after line 7:

Host belonging to family Malpighiaceae.	5a. *U. Standleyanus.*

Replace line 11 by:

Host belonging to family Acanthaceae.	
Teliospore-wall thicker above.	8. *U. Hariotanus.*
Teliospore-wall evenly thick.	8a. *U. Anthacanthi.*

587. **Uromyces guatemalensis.**

Add the host: *Bauhinia ungulata* L., Salvador.

588. Insert:

4a. **Uromyces punctiformis** Sydow, Ured. *1513.* 1901.

II. Uredinia amphigenous, few, scattered, small, 0.2–0.4 mm. across, round, early naked, pulverulent, cinnamon-brown, ruptured epidermis noticeable; urediniospores obovoid, 19–21 by 24–26 μ; wall thin, 1 μ, golden-brown, minutely and moderately echinulate, the pores 2, equatorial.

III. Telia amphigenous, chiefly epiphyllous, numerous, scattered, small, 0.2–0.4 mm. across, early naked, pulverulent, blackish, ruptured epidermis noticeable; teliospores globoid, 22–26 by 26–28 μ; wall chestnut-brown, uniformly thick, 2.5–3 μ, the pore covered by a broad cinnamon-brown umbo 8–10 μ thick, closely and minutely verrucose, best seen when dry; pedicel colorless, persistent, 40–65 μ long.

ON FABACEAE:
Vigna strobiliphora B. L. Robinson, Jalisco.
TYPE LOCALITY: Guadalajara, Mexico.
DISTRIBUTION: Known only from the type locality.
EXSICCATI: Sydow, Ured. *1513.*

588. Insert:

5a. **Uromyces Standleyanus** Arth. Bull. Torrey Club **51**: 57. 1924.

II. Uredinia hypophyllous, scattered or closely gregarious, round, 0.3–0.5 mm. in diameter, soon naked, pulverulent, cinnamon-brown, ruptured epidermis inconspicuous; urediniospores broadly ellipsoid or obovate, 23–26 by 29–32 μ; wall pale golden-brown with a colorless outer layer becoming evident in lactic acid, moderately thick, 3 μ, strongly

and sparsely echinulate, the points 3–5 μ apart, the pores indistinct, apparently 3, approximately equatorial.

III. Telia hypophyllous, scattered, round, about 0.5 mm. in diameter, soon naked, pulvinate, cinnamon-brown, slightly darker than the uredinia, ruptured epidermis inconspicuous; teliospores obovate or cuneiform, 15–19 by 38–42 μ, rounded above, narrowed below, germinating at maturity; wall pale cinnamon-brown, thin, 1 μ, greatly thickened above, 12–16 μ, smooth; pedicel colorless, fragile, length of spore or less.

ON MALPIGHIACEAE:
Gaudichaudia Schiedeana Juss., Salvador.
TYPE LOCALITY: Near Tonacatepeque, Department of San Salvador, Salvador, on *Gaudichaudia Schiedeana*.
DISTRIBUTION: Known only from the type locality.

589. Insert:

8a. **Uromyces Anthacanthi** H. S. Jackson; Seaver, Mycologia **16**: 47. 1924.

II. Uredinia epiphyllous, closely gregarious and arranged in a concentric manner on areas 5–8 mm. across, tardily naked, cinnamon-brown, ruptured epidermis conspicuous and at first overarching; urediniospores obovoid, 20–26 by 26–30 μ; wall thin, 1–1.5 μ, golden-yellow, finely and moderately echinulate, the pores obscure, apparently 2, slightly superequatorial.

III. Telia arranged like the uredinia, chestnut-brown; teliospores globoid or broadly ellipsoid, 20–24 by 26–30 μ, rounded above and below; wall chestnut-brown, uniformly 1.5–2.5 μ thick, finely and rather inconspicuously verrucose; pedicel colorless, as long as the spore or shorter.

ON ACANTHACEAE:
Anthacanthus spinosus (L.) Nees, St. Croix.
TYPE LOCALITY: St. Croix, Virgin Islands, on *Anthacanthus spinosus*.
DISTRIBUTION: Known only from the type locality.

591. **Puccinia Heliconiae.**
Add the host: *Bihai pendula* (Wawra) Kuntze (*Heliconia pendula* Wawra), Panama.

593. **Puccinia Marsdeniae.**
Insert: ILLUSTRATION: Holway, N. Am. Ured. **1**: *pl. 48, f. 153a, b.*

594. **Puccinia Antirrhini.**
Add the exsiccati: Barth. N. Am. Ured. *3224, 3334, 3449.*

603. **Puccinia Eriophylli.**
Add the host: *Eriophyllum integrifolium* (Hook.) Greene, Wyoming.

605. In the key.
Replace line 2 by:

Host belonging to family Araceae.	
Urediniospore-wall uniformly thin.	2. *U. Anthurii.*
Urediniospore-wall slightly thicker above.	2*a*. *U. jucunda.*

Replace line 3 by:

Host belonging to family Commelinaceae.	
Urediniospores small, 19–29 μ long.	3. *U. Commelyneae.*
Urediniospores large, 29–32 μ long.	3*a*. *U. Campeliae.*

Insert after line 19:

Host belonging to family Urticaceae.	14*a*. *U. Rousseliae.*

Replace line 35 by:

Urediniospores large (24–32 μ), wall cinnamon-brown.	
Pores 2, rarely 3.	26. *U. lutea.*
Pores 3 or 4.	26*a*. *U. ramonensis.*

Insert after line 43:

Host belonging to family Anacardiaceae.	33*a*. *U. Mauriae.*

Insert after line 49:

Host belonging to family Terminaliaceae.	39*a*. *U. Buchenaviae.*

Replace line 50 by:

Host belonging to family Onagraceae.	
Urediniospores small, 18–24 μ long.	40. *U. Fuchsiae.*
Urediniospores large, 24–32 μ long.	40*a*. *U. guaynabensis.*

606. In the key.

Replace line 2 by:

Urediniospore-wall thicker, 1–1.5 μ. 54. *U. Cephalanthi.*
Urediniospore-pores 4. 54a. *U. Borreriae.*
Urediniospore-pores 2 or 3.

606. Insert:

2a. **Uredo jucunda** Sydow, Ann. Myc. **23**: 324. 1925.

II. Uredinia hypophyllous, in somewhat dense or subconcentric groups on slightly discolored spots, ruptured epidermis conspicuous, small, 0.15–0.25 mm. across; peridium and paraphyses none; urediniospores variable in form and size, obovate-oblong or elongate-ellipsoid, 21–25 by 30–46 μ; wall at first nearly or quite colorless becoming fuscous, 1.5–2.5 μ thick, frequently somewhat thicker at apex and base, the pores obscure.

ON ARACEAE:
Philodendron tripartitum (Jacq.) Schott, Costa Rica.
TYPE LOCALITY: San Pedro de San Ramón, Costa Rica, on *Philodendron tripartitum.*
DISTRIBUTION: Known only from the type locality.

606. Insert:

3a. **Uredo Campeliae** Kern & Whetzel, Mycologia **18**: 40. 1926.

II. Uredinia chiefly hypophyllous, scattered, small, roundish or oval, 0.2–0.4 mm. across, rather long covered by the epidermis, dingy yellow; urediniospores broadly ellipsoid, 22–27 by 29–32 μ, the wall pale-yellow or colorless, thin, about 1.5 μ, sparsely and strongly echinulate with points 2–3 μ apart, the pores 2, equatorial.

ON COMMELINACEAE:
Campelia Zanonia (L.) H.B.K., Porto Rico.
TYPE LOCALITY: Hacienda Limon near Villa Alba, Porto Rico.
DISTRIBUTION: Known only from the type locality.

607. **Uredo Guacae.**

Add the host: *Epidendrum corymbosum* Lindl., Porto Rico.

609. Insert:

14a. **Uredo Rousseliae** Kern & Whetzel, Mycologia **18**: 40. 1926.

II. Uredinia hypophyllous, numerous, scattered or crowded in small irregular groups, small, 0.1–0.2 mm. across, with imbricated incurved paraphyses united at their bases forming a pseudo-peridium opening by a central pore, pale-brown; urediniospores broadly ellipsoid, 16–19 by 20–27 μ, the wall colorless, thin, 1–1.5 μ, finely and closely verrucose, the pores obscure.

ON URTICACEAE.
Rousselia humilis (Sw.) Urban, Porto Rico.
TYPE LOCALITY: Hacienda Limon near Villa Alba, Porto Rico.
DISTRIBUTION: Known only from the type locality.

611. Insert:

26a. **Uredo ramonensis** Sydow, Ann. Myc. **23**: 325. 1925.

II. Uredinia hypophyllous, scattered or in small groups, round, about 0.5 mm. in diameter, tardily naked, dark cinnamon-brown; peridium and paraphyses none; urediniospores obovate or ellipsoid, 18–23 by 24–32 μ; wall cinnamon-brown, paler below, thin, 1–1.5 μ, the pores 3 or 4, equatorial.

ON CAESALPINIACEAE:
Chamaefistula bacillaris (L. f.) G. Don (*Cassia bacillaris* L. f.), Costa Rica.
TYPE LOCALITY: San Pedro de San Ramón, Costa Rica, on *Cassia bacillaris.*
DISTRIBUTION: Known only from the type locality.

613. Insert:

33a. **Uredo Mauriae** Sydow, Ann. Myc. **23**: 325. 1925.

II. Uredinia hypophyllous on small, brownish spots 1–3 mm. across, scattered or somewhat concentric, minute, 0.1–0.15 mm. in diameter, early naked, somewhat waxy, chestnut-brown; paraphyses peripheral, abundant, cylindric, upright or incurved, 7–10

by 25–45 μ, the wall thick, nearly closing the lumen, almost colorless; urediniospores variable, elongate-ellipsoid, reniform or angular, 13–17 by 20–26 μ; wall cinnamon-brown, thin, 1 μ, minutely and densely verrucose-echinulate, often extending at the middle into low blunt processes, the pores 2, equatorial.

ON ANACARDIACEAE:
Mauria glauca Donn. Sm., Costa Rica.
TYPE LOCALITY: La Caja near San José, Costa Rica, on *Mauria glauca*.
DISTRIBUTION: Known only from the type locality.

614. **Uredo Cupheae.**

Add the host: *Parsonia Balsamona* (Cham. & Schlecht.) Arth. (*Cuphea Balsamona* Cham. & Schlecht.), Costa Rica.

614. Insert:

39a. **Uredo Buchenaviae** Kern & Whetzel, Mycologia **18**: 41. 1926.

II. Uredinia hypophyllous, few, scattered, very small, 0.1 mm. or less across, without peridium or paraphyses, long covered by the epidermis, punctiform, light yellowish-brown; urediniospores broadly ellipsoid or obovoid, often angular, 16–23 by 23–29 μ, the wall pale cinnamon-brown, 1–1.5 μ thick, moderately echinulate, the pores obscure, probably 2, equatorial.

ON TERMINALIACEAE:
Buchenavia capitata (Vahl) Eichl., Porto Rico.
TYPE LOCALITY: Reservoir road near Guaynabo, Porto Rico.
DISTRIBUTION: Known only from the type locality.

614. Insert:

40a. **Uredo guaynabensis** Kern & Whetzel, Mycologia **18**: 41. 1926.

II. Uredinia hypophyllous, scattered, roundish or oval, 0.2–0.4 mm. across, tardily naked, light chestnut-brown; urediniospores broadly ellipsoid or obovoid, often more or less irregular or angular, 18–23 by 24–32 μ (occasionally up to 37 μ) long, the wall thin, about 1 μ, golden-brown, moderately echinulate, the pores 2, equatorial or superequatorial.

ON ONAGRACEAE:
Jussiaea angustifolia Lam. (*J. suffruticosa* Auth. not L.), Cuba, Porto Rico.
Jussiaea peruviana L., Cuba.
TYPE LOCALITY: Demonstration Farm, near Guaynabo, Porto Rico.
DISTRIBUTION: West Indies.

616. **Uredo contraria.**

Add the exsiccati: Barth. N. Am. Ured. *3376*.

616. **Uredo Nicotianae.**

Change the citation for this name to read: Anast., Sacc. & Splend.; Anast. & Splend. Boll. Tecn. Tabac. Ist. Scafati **3**[1]: 53. 1904.

Change the type locality to read: Experimental garden at Scafati, Italy, on *Nicotiana quadrivalvis*.

Change the distribution to read: California; also in Italy.

Add: ILLUSTRATION: Boll. Tecn. Tabac. Ist. Scafati: **3**[1]: *pl.*

617. Insert:

54a. **Uredo Borreriae** (P. Henn.) Kern & Whetzel, Mycologia **18**: 42. 1926.

Uromyces Borreriae P. Henn. Hedwigia **35**: 227. 1896.

II. Uredinia amphigenous, scattered, round, 0.3–0.5 mm. in diameter, tardily naked, cinnamon-brown, the overarching epidermis breaking away irregularly; urediniospores broadly ellipsoid or obovate, 19–21 by 24–29 μ; wall cinnamon-brown, 1–1.5 μ thick, moderately and finely echinulate, the pores 2 or 3, equatorial.

ON RUBIACEAE:
Borreria verticillata (L.) G. Meyer, Porto Rico.
TYPE LOCALITY: Rio de Janeiro, Brazil, on *Borreria verticillata*.
DISTRIBUTION: Porto Rico; also in South America.

619. In the key.

Insert after line 12:

Host belonging to family Polygonaceae.	10*a*. *A. minutulum*.

Insert after line 17:

Host belonging to family Annonaceae.	14*a*. *A. Anonae*.

620. In the key.

Replace line 47 by:

Aeciospore-wall colorless.	
Aeciospore-wall moderately verrucose.	66. *A. Farameae*.
Aeciospore-wall coarsely verrucose.	66*a*. *A. Psychotriae*.

Insert after line 48:

Host belonging to family Valerianaceae.	67*a*. *A. Valerianellae*.

Replace line 55 by:

Aeciospore-wall 1 μ thick.	
Outer peridial wall thin, 2–3 μ.	71. *A. ampliatum*.
Outer peridial wall thick, 6–12 μ.	71*a*. *A. Mikaniae*.

Replace line 62 by:

Peridial cells slightly or not imbricated.	
Outer wall 6–10 μ thick.	75. *A. Batesii*.
Outer wall 2–3 μ thick.	75*a*. *A. poasense*.

623. Insert:

10a. **Aecidium minutulum** H. S. Jackson; Barth. N. Am. Ured. *3401*. 1926.

O. Pycnia amphigenous, chiefly epiphyllous, subepidermal, globoid, 95–115 μ in diameter; ostiolar filaments short or wanting.

I. Aecia amphigenous, chiefly hypophyllous, in large irregularly concentric groups 3–6 mm. across on yellowish spots, cupulate; peridium pale-yellow, the margin revolute, becoming lacerate; peridial cells rhomboidal, considerably overlapping, 16–18 by 30–34 μ, the outer wall transversely striate, 3–4 μ thick, the inner wall 1.5–2 μ thick, closely and finely tuberculate-verrucose; aeciospores angularly globoid, 14–16 μ in diameter; wall colorless, thin, 1 μ, very minutely verrucose, appearing smooth.

ON POLYGONACEAE:
Rumex sp., Texas.
TYPE LOCALITY: Wichita Falls, Texas, on *Rumex* sp.
DISTRIBUTION: Known only from the type locality.
EXSICCATI: Barth. N. Am. Ured. *3401*.

624. Insert:

14a. **Aecidium Anonae** P. Henn. Hedwigia **34**: 100. 1895.

Aecidium anonaceicola P. Henn. **34**: 101. 1895.

O. Pycnia epiphyllous, numerous, densely distributed on yellowish-brown spots opposite the aecia, at first yellowish-brown, becoming darker, flattened-globoid or lenticular, 130–150 μ broad by 70–95 μ high; ostiolar filaments not conspicuous.

I. Aecia hypophyllous, crowded in groups or arranged in irregular annular manner on slightly hypertrophied areas 0.3–1 cm. across; peridium firm, pale-yellow, cupulate, the margin revolute, lacerate; peridial cells rhombic, 15–18 by 18–24 μ, slightly overlapping, the outer wall 4–5 μ thick, smooth, the inner wall 2–3 μ thick, minutely verrucose; aeciospores angularly globoid or ellipsoid, 15–20 by 20–24 μ; wall colorless, 1–1.5 μ thick, closely and inconspicuously verrucose.

ON ANNONACEAE:
Annona Spraguei Safford, Panama.
TYPE LOCALITY: Goyaz near Meiaponte, Brazil, on *Anona* sp.
DISTRIBUTION: Panama; also in South America.

635. **Aecidium Verbenae.**

Add the host: *Lantana hispida* H.B.K., Costa Rica.

639. **Aecidium pulverulentum.**

Add the host: *Randia spinosa* (Jacq.) Karst., Panama.

639. Insert:

66a. **Aecidium Psychotriae** P. Henn. Hedwigia **43**: 166. 1904.

O. Pycnia epiphyllous, densely grouped in center of yellowish spots, conspicuous, brownish, ovoid, 95–125 μ broad by 130–160 μ high; ostiolar filaments short.

I. Aecia hypophyllous, scattered on yellowish spots 5–1.5 mm. across, cupulate; peridium colorless or pale-yellow, the margin erect, erose; peridial cells irregularly rhomboidal in side view, 12–16 by 26–32 μ, strongly overlapping, the outer wall 3–4 μ thick, smooth, the inner wall 2.5–3 μ thick, strongly verrucose; aeciospores angularly globoid or oblong, 18–26 by 26–32 μ; wall colorless, 1.5–2 μ in thickness, greatly thickened above, 8–16 μ, strongly verrucose.

ON RUBIACEAE:
Psychotria pinularis Sessé & Moc., Costa Rica; Panama.
TYPE LOCALITY: Cerro de Isco, Peru, on *Psychotria* sp.
DISTRIBUTION: Costa Rica; also in South America.

640. Insert:

68a. **Aecidium Valerianellae** Biv. Stirp. Rar. Sic. **4**: 28. 1816.

Aecidium Fediae Berg. Giorn. Fis. Chim. Pavia **7**: 281. 1824.
Aecidium Valerianellae P. Henn. Hedwigia **37**: 272. 1898.
Aecidium Velenovskyi Bubák, Sitz.-ber. Böhm. Ges. Wiss. **1900**[7]: 4. 1900.
Aecidium balearicum Gonz. Frag. Trab. Mus. Nac. Ci. Nat. Madr. Bot. **15**: 225. 1918.

O. Pycnia hypophyllous, numerous, scattered among the aecia, yellowish becoming dark-brown or blackish, punctiform, noticeable, subepidermal.

I. Aecia hypophyllous, from diffused mycelium, thickly scattered over the lower surface, cylindric or somewhat cupulate, 0.25–0.35 mm. in diameter, 0.2–0.3 mm. high, the margin revolute, coarsely lacerate; peridial cells rhomboidal, 16–22 by 20–35 μ, the outer wall 3–6 μ thick, transversely striate, smooth, the inner wall 2–3 μ thick, verrucose; aeciospores globoid or broadly ellipsoid, 13–18 by 15–23 μ; wall colorless or pale-yellowish, thin, 1–1.5 μ, minutely verrucose.

ON VALERIANACEAE:
Valeriana congesta Lindl., California, Washington.
TYPE LOCALITY: Sicily, on *Valerianella campanulata*.
DISTRIBUTION: Southern Washington to central California; also in Europe.

641. Insert:

71a. **Aecidium Mikaniae** P. Henn. Hedwigia **35**: 261. 1896.

Aecidium expansum Dietel, Hedwigia **38**: 258. 1899.

O. Pycnia not seen.

I. Aecia hypophyllous, in small or large groups 1 to 8 mm. across, cupulate, small, 0.3–0.5 mm. in diameter; peridium pale-yellow, the margin erect, erose; peridial cells irregularly oblong, 16–22 by 25–40 μ, very slightly overlapping, the outer wall thick, 7–10 μ, transversely striate, smooth, the inner wall thinner, 4–6 μ, finely verrucose; aeciospores globoid, 16–20 μ; wall thin, 1 μ or less, very finely and obscurely verrucose, appearing smooth.

ON CARDUACEAE:
Mikania houstoniana (L.) B. L. Robinson, Honduras.
TYPE LOCALITY: Santa Catharina near Blumenau, Brazil, on *Mikania confertissima*.
DISTRIBUTION: Honduras; also in South America and central Africa.

642. Insert:

75a. **Aecidium poasense** Sydow, Ann. Myc. **23**: 324. 1925.

O. Pycnia not seen.

I. Aecia amphigenous, on thickened spots 2–5 mm. across, deep seated, 0.2–0.25 mm. in diameter; peridium scarcely protruding; peridial cells rhomboidal or oblong, 12–18 by 28–35 μ, abutted, easily falling apart, the outer wall thin, 2–3 μ, finely verrucose,

the inner wall 1–1.5 μ thick, nearly or quite smooth; aeciospores globoid or broadly ellipsoid, 16–18 by 17–23 μ; wall colorless, thin, 1 μ, densely and minutely verrucose.

ON CARDUACEAE:
Otopappus verbesinoides Benth., Costa Rica.
TYPE LOCALITY: Near Grecia, on Mt. Poás, Costa Rica, on *Otopappus verbesinoides*.
DISTRIBUTION: Known only from the type locality.

647. **Peridermium coloradense.**
Add the exsiccati: Barth. N. Am. Ured. *3329*, *3444*.

ADDENDA

The following exsiccati were omitted from their proper places in the additions and corrections on pages 649–796 (parts 9–11 of this volume). All the numbers are from Barth. N. Am. Ured.

650. **Coleosporium ribicola.** *3310*, *3311*.
652. **Coleosporium Ipomoeae.** *3308*, *3309*, *3405*.
653. **Coleosporium Campanulae.** *3305*.
Coleosporium Vernoniae. *3306*.
654. **Coleosporium aridum.** *3404*.
655. **Coleosporium Laciniariae.** *3406*.
Coleosporium Solidaginis. *3312*, *3407*.
658. **Coleosporium Helianthi.** *3307*.
664. **Melampsora Abietis-canadensis.** *3437*.
666. **Uredo Bigelowii.** *3321*, *3322*, *3438*, *3439*.
667. **Melampsora confluens.** *3323*.
668. **Melampsora Humboldtiana.** *3324*.
670. **Melampsora monticola.** *3325*, *3440*.
674. **Bubakia Crotonis.** *3304*, *3403*.
677. **Pucciniastrum americanum.** *3481*.
Pucciniastrum pustulatum. *3374*, *3482*, *3483*.
678. **Pucciniastrum sparsum.** *3484*.
680. **Melampsoridium Alni.** *3326*.
681. **Melampsorella elatina.** *3441*.
688. **Melampsoropsis Pyrolae.** *3442*, *3443*.
690. **Melampsoropsis abietina.** *3327*.
691. **Chrysomyxa Arctostaphyli.** *3328*.
691. **Cronartium Comptoniae.** *3404*.
692. **Cronartium ribicola.** *3313*, *3314*, *3412*.
694. **Cronartium coleosporioides.** *3330*, *3331*, *3409*, *3410*, *3411*, *3445*.
701. **Endophyllum tuberculatum.** *3315*, *3413*.
717. **Ravenelia epiphylla.** *3375*.
724. **Uropyxis Amorphae.** *3400*.
726. **Phragmidium Rosae-acicularis.** *3447*.
Phragmidium montivagum. *3332*, *3446*.
729. **Gymnoconia interstitialis.** *3316*, *3414*, *3415*.
730. **Kuehneola Uredinis.** *3320*, *3436*.
737. **Gymnosporangium inconspicuum.** *3427*, *3428*, *3429*.
Gymnosporangium Harknessianum. *3425*, *3426*.
192. **Gymnosporangium multiporum.** *3432*.
754. **Nigredo Junci-effusi.** *3495*.
769. **Nigredo Spermacoces.** *3397*, *3398*.
776. **Dicaeoma Stipae.** *3369*.
Dicaeoma scaber. *3363*.
778. **Dicaeoma pygmaeum.** *3358*.
315. **Dicaeoma Cynodontis.** *3455*.

786. **Dicaeoma minutissimum** (not **D. Trientalis**, as stated on page 787). *3370.*
787. **Dicaeoma Peckii.** *3356.*
410. **Dicaeoma caulicola.** *3338.*
794. **Dicaeoma** (?) **Stephanomeriae.** *3368.*

The following exsiccati were entered in the additions and corrections by number, but the host-names have not been mentioned.

739. **Gymnosporangium gracilens.**
Fendlera tomentella Thornb., Colorado (*3423*).
780. **Dicaeoma abundans.**
Symphoricarpos mollis Nutt., California (*3333*).

ADDITIONAL LOCALITIES

The localities in the following list are in addition to those mentioned in the preceding pages for the same species and host. When wholly or partly represented by exsiccati the localities are printed in *italics*.

87. **Coleosporium apocynaceum.**
Amsonia ciliata Walt., Florida, *Georgia.*
Coleosporium Plumierae.
Plumiera alba L., Panama; Porto Rico.
Plumiera rubra L., Guatemala; Santo Domingo.
Coleosporium Ipomoeae.
Calonyction aculeatum (L.) House, Alabama.
Ipomoea Batatas Lam., Porto Rico.
Ipomoea lacunosa L., *Alabama, Arkansas.*
Ipomoea pandurata (L.) Meyer, *Arkansas*, Kentucky, *North Carolina*, Virginia.
Ipomoea speciosa Walt., Bermuda.
Pharbitis cathartica (Poir.) Choisy, Cuba.
Pharbitis hederacea (L.) Choisy, *Arkansas*, Delaware, *Kentucky*, Mississippi, New Jersey, *Oklahoma, Tennessee;* Costa Rica; Porto Rico; St. Croix.
Pharbitis purpurea (L.) Voigt, *Arkansas*, Delaware, *Illinois, Louisiana, Missouri, Pennsylvania*, South Carolina.
Quamoclit coccinea (L.) Moench, Porto Rico.
Thyella tamnifolia (L.) Raf., Cuba; Porto Rico.

88. **Coleosporium Campanulae.**
Pinus rigida Mill., Maryland, New Jersey, North Carolina.
Campanula rapunculoides L., Connecticut, New Jersey.
Campanulastrum americanum (L.) Small, Illinois, Indiana, Kentucky, Michigan, Mississippi, *Missouri.*

89. **Coleosporium Vernoniae.**
Vernonia altissima Nutt., Arkansas, Louisiana, Mississippi, South Carolina, Tennessee.
Vernonia angustifolia Michx., Florida.
Vernonia Baldwinii Torr., Illinois, Mississippi, *Oklahoma*, Texas.
Vernonia crinita Raf., *Arkansas.*
Vernonia fasciculata Michx., Iowa, Mississippi, *Nebraska*, Oklahoma.
Vernonia flaccidifolia Small, Florida, Tennessee.
Vernonia gigantea (Nutt.) Britton, *Arkansas, Delaware*, Georgia, *Illinois*, Kentucky, Mississippi, *Tennessee.*
Vernonia glauca (L.) Britton, *Arkansas, Kentucky, West Virginia.*
Vernonia interior Small, Arkansas, *Iowa, Kansas*, Nebraska, Texas.
Vernonia missourica Raf., *Illinois, Tennessee.*

Vernonia noveboracensis (L.) Willd., Delaware, Georgia, *Illinois*, Indiana, Maryland, *Ohio*, South Carolina, Virginia.
Vernonia ovalifolia T. & G., Louisiana.
Vernonia texana (A. Gray) Small, Louisiana.

Coleosporium Elephantopodis.
Elephantopus carolinianus Willd., Delaware, Indiana, *Maryland*, *North Carolina*, *Ohio*, *Texas*, *West Virginia*.
Elephantopus mollis H.B.K., Santo Domingo.
Elephantopus nudatus A. Gray, *Georgia*.
Elephantopus tomentosus L., *Georgia*, *Louisiana*.

90. **Coleosporium Eupatorii.**
Eupatorium collinum DC., Costa Rica.
Eupatorium macrophyllum L., Porto Rico.

Coleosporium Laciniariae.
Laciniaria graminifolia (Walt.) Kuntze, *Georgia*, New Jersey.

Coleosporium Solidaginis.
Pinus rigida Mill., Delaware, District of Columbia, *Maryland*, North Carolina, *Pennsylvania*, Tennessee.
Aster chilensis Nees, *North Dakota*.
Aster conspicuus Lindl., Oregon, *Washington*, Wyoming; Alberta.
Aster cordifolius L., Connecticut, Iowa, Maine, Vermont, West Virginia; *Ontario*.
Aster divaricatus L., Connecticut, New Hampshire, New York.
Aster ericoides L., Indiana, Kentucky, *Ohio*.
Aster laevis L., Colorado, Connecticut, Idaho, Montana, *Nebraska*, New York, North Dakota, Washington; Ontario.
Aster lateriflorus (L.) Britton, Connecticut, *Illinois*, Maine, Michigan, Tennessee.
Aster Lindleyanus T. & G., *Ontario*.
Aster longifolius Lam., Indiana.
Aster macrophyllus L., Connecticut, West Virginia; Ontario.
Aster multiflorus Ait., Colorado, New York.
Aster Novae-Angliae L., *Nebraska*.
Aster Novi-Belgii L., New York, Rhode Island, Virginia.
Aster paniculatus Lam., Connecticut, Delaware, Michigan, *Missouri*, *Nebraska*, New York, *North Dakota*, *Pennsylvania*, *South Dakota*, *Wisconsin*.
Aster patens Nutt., Nova Scotia.
Aster prenanthoides Muhl., Pennsylvania.
Aster puniceus L., Connecticut, Iowa, Maine, Massachusetts, Nebraska, *New York*, Pennsylvania, Rhode Island, Vermont.
Aster sagittifolius Willd., *Illinois*, Maine, Mississippi, Vermont, *Wisconsin; Ontario*.
Aster salicifolius Lam., *Idaho*, *Kentucky*, *New York*.
Aster Tradescanti L., Pennsylvania.
Aster vimineus Lam., Connecticut, New York.
Callistephus hortensis Cass., Connecticut, Indiana; *Ontario*.
Solidago arguta Ait., Connecticut.
Solidago bicolor L., Connecticut, Indiana, Maine, Massachusetts, New Hampshire, New Jersey, Pennsylvania, Rhode Island, Vermont, Virginia.
Solidago caesia L., *Arkansas*, Connecticut, Kentucky, Missouri, *New Hampshire*, New Jersey, Pennsylvania, Rhode Island.
Solidago canadensis L., *Arkansas*, Connecticut, Delaware, Maryland, Massachusetts, Mississippi, *Montana*, Nebraska, *New Hampshire*, North Carolina, *North Dakota*, *Pennsylvania*, *South Carolina*, Vermont, Virginia, *Wisconsin; Ontario*.
Solidago Elliottii T. & G., New York.
Solidago flexicaulis L., Connecticut, *Kentucky*, Maryland, Missouri, Tennessee, Virginia; *Ontario*.

Solidago glaberrima Martens, Alberta.
Solidago juncea Ait., Connecticut, Indiana, Maine, Michigan, New Jersey, Pennsylvania, Tennessee.
Solidago missouriensis Nutt., Nebraska, Oregon.
Solidago multiradiata scopulorum A. Gray, Colorado.
Solidago nemoralis Ait., *Arkansas*, Connecticut, Iowa, Missouri, New York, Pennsylvania, *Tennessee*, Vermont; *Ontario*.
Solidago patula Muhl., New York; Ontario.
Solidago puberula Nutt., New York.
Solidago rugosa Mill., *Arkansas*, Delaware, Massachusetts, Michigan, New Jersey, Pennsylvania.
Solidago sempervirens L., *Maine*, New York; Bermuda.
Solidago serotina Ait., *Arkansas*, Kentucky, *Michigan*, *Minnesota*, Missouri, *Nebraska*, *North Dakota*, *Ohio*, *Wisconsin*.
Solidago uliginosa Nutt., Massachusetts.
Solidago ulmifolia Muhl., *Illinois*, *Kansas*, New York.

92. **Coleosporium Madiae.**
Madia racemosa (Nutt.) T. & G., Oregon.
Madia sativa Molina, Oregon; British Columbia.

93. **Coleosporium Helianthi.**
Helianthus decapetalus L., New York, Pennsylvania.
Coleosporium Terebinthinaceae.
Silphium asperrimum Hook., Mississippi.
Silphium integrifolium Michx., Missouri.
Silphium scaberrimum Ell., North Carolina.
Silphium terebinthinaceum Jacq., *Indiana*.
Silphium trifoliatum L., *Georgia*.

94. **Coleosporium paraphysatum.**
Liabum discolor Benth. & Hook., Salvador.
Coleosporium Senecionis.
Senecio vulgaris L., Colorado.

95. **Gallowaya Pini.**
Pinus virginiana Mill., Delaware.

98. **Uredo Medusae.**
Populus deltoides Marsh., *Arkansas*, Connecticut, Michigan, Minnesota, *North Dakota*, Oklahoma, *South Dakota*, *Texas*, *West Virginia*.

101. **Uredo Lini.**
Linum Lewisii Pursh, Idaho, North Dakota, *South Dakota;* Alberta.
Linum rigidum Pursh, *North Dakota*.
Linum sulcatum Ridd., *North Dakota*, *South Dakota*, *Wyoming*.
Linum usitatissimum L., Connecticut.

102. **Physopella Vitis.**
Vitis vinifera L., Costa Rica; Porto Rico.

104. **Bubakia Crotonis.**
Croton capitatus Michx., *Arkansas*, *Louisiana*, Oklahoma, *Texas*.
Croton monanthogynus Michx., *Arkansas*, *Kentucky*, Mississippi, *Oklahoma*, Tennessee, *Texas*.
Croton punctatus Jacq., Honduras.
Croton texensis (Klotzsch) Muell.-Arg., Arizona.
Crotonopsis linearis Michx., Arkansas, *Tennessee*.

105. **Pucciniastrum Goodyerae.**
Peramium Menziesii (Lindl.) Morong, New Mexico, Oregon.

106. **Pucciniastrum Hydrangeae.**
Hydrangea arborescens L., *Arkansas*, *Kentucky*, Maryland, Pennsylvania, *Tennessee*.

Pucciniastrum Agrimoniae.
Agrimonia Brittoniana Bickn., *Colorado*.
Agrimonia hirsuta (Muhl.) Bickn., Connecticut, Delaware, Kentucky, Maryland, New Mexico, *North Dakota*, Pennsylvania, South Dakota, Virginia, West Virginia, Wisconsin; Alberta, Nova Scotia.
Agrimonia mollis (T. & G.) Britton, *Arkansas*, *Nebraska*, *New Mexico*, *Virginia; Ontario*.
Agrimonia parviflora Sol., *Arkansas*, *Delaware*, Kentucky, Michigan, *Maryland*, *Mississippi*, North Carolina, Virginia, Tennessee.
Agrimonia pumila Muhl., Indiana, Kansas, Louisiana, Michigan.

107. **Pucciniastrum pustulatum.**
Chamaenerion angustifolium (L.) Scop., Alaska, Maine, New Mexico, *North Dakota*, *Oregon*, *West Virginia;* Alberta, British Columbia, Manitoba, Northwest Territory, Nova Scotia.
Epilobium adenocaulon Haussk., Alaska, Idaho, New York, *North Dakota*, Oregon, Pennsylvania, *South Dakota*, *Utah*, Virginia, *Washington*, West Virginia, Wisconsin, *Wyoming;* British Columbia.
Epilobium adenocaulon occidentale Trel., *Wyoming*.
Epilobium alpinum L., Alaska.
Epilobium anagallidifolium Lam., *Utah*.
Epilobium coloratum Muhl., Pennsylvania.

108. **Pucciniastrum Pyrolae.**
Chimaphila maculata (L.) Pursh, Delaware, Maryland.
Pyrola elliptica Nutt., Connecticut, Delaware, Iowa; Nova Scotia.
Pyrola secunda L., Montana.
Pucciniastrum sparsum.
Arbutus Menziesii Pursh, *Oregon*, *Washington*.
Arctostaphylos nevadensis A. Gray, Oregon.
Mairania alpina (L.) Desv., Alaska.

109. **Pucciniastrum minimum.**
Azalea nudiflora L., Connecticut.
Azalea sp., Delaware, *Georgia*.
Rhodora canadensis L., Nova Scotia.
Pucciniastrum Myrtilli.
Gaylussacia resinosa (Ait.) T. & G., *Connecticut*, Wisconsin; Quebec.
Vaccinium caespitosum Michx. (*V. caespitosum cuneifolium* Nutt.); Alaska, Montana, Oregon.
Vaccinium corymbosum L., *Delaware*, New York; Ontario.
Vaccinium globulare Rydb., *Montana*.
Vaccinium membranaceum Dougl., *Montana*, Oregon.
Vaccinium oreophilum Rydb., Montana, New Mexico.

110. **Melampsoridium Betulae.**
Betula glandulosa Michx., Idaho, Montana.
Betula lutea Michx., Ohio.
Betula populifolia Marsh., *Connecticut*, Maine, *New Hampshire*, New Jersey, New York.

111. **Melampsorella elatina.**
Abies balsamea (L.) Mill., Manitoba, *New Brunswick, Nova Scotia, Ontario.*
Abies lasiocarpa Nutt., Colorado, New Mexico, Oregon, *Washington;* British Columbia.
Cerastium occidentale Greene, Colorado.
Cerastium oreophilum Greene, South Dakota.
Cerastium vulgatum L., Oregon; Manitoba.

112. **Hyalopsora Aspidiotus.**
Phegopteris Dryopteris (L.) Fée, Idaho, Oregon, Washington; Ontario, Quebec.
Hyalopsora Polypodii.
Filix fragilis (L.) Underw., Alaska, California, Connecticut, Iowa, Michigan, Mississippi, *Nebraska,* Ohio, Oregon, Pennsylvania; British Columbia, Ontario.

113. **Hyalopsora laeviuscula.**
Polypodium Glycyrrhiza D. C. Eaton, Alaska, Oregon.
Hyalopsora Cheilanthis.
Cryptogramme Stelleri (Gmel.) Prantl, Montana.

114. **Calyptospora columnaris.**
Vaccinium canadense Rich., Wisconsin.
Vaccinium corymbosum L., Pennsylvania.
Vaccinium membranaceum Dougl., *Montana,* Oregon, Wyoming.
Vaccinium oreophilum Rydb., Montana, *Washington.*
Vaccinium ovatum Pursh, Oregon.
Vaccinium parvifolium J. E. Smith, Oregon.
Vaccinium pennsylvanicum Lam., *New Hampshire;* Nova Scotia.
Necium Farlowii.
Tsuga canadensis (L.) Carr., Connecticut, Wisconsin; Nova Scotia.

115. **Uredinopsis Osmundae.**
Osmunda cinnamomea L., *New Hampshire.*
Osmunda Claytoniana L., Connecticut, Indiana, Minnesota, Vermont; Nova Scotia.
Osmunda spectabilis Willd., New York; Nova Scotia.
Uredinopsis mirabilis.
Lorinseria areolata (L.) Presl, Maryland.
Onoclea sensibilis L., Delaware, Indiana, Michigan, *Nebraska, New Hampshire,* Virginia; Nova Scotia, Ontario, Quebec.

116. **Uredinopsis Copelandi.**
Athyrium cyclosorum Rupr., Idaho, Montana, Oregon, *Washington;* British Columbia.
Uredinopsis Struthiopteridis.
Anchistea virginica (L.) Presl, Connecticut, Indiana, *Massachusetts,* Michigan, *New York;* Bermuda.
Matteuccia Struthiopteris (L.) Todaro, Nova Scotia, Quebec.

117. **Uredinopsis Atkinsonii.**
Asplenium Filix-foemina (L.) Bernh., Connecticut, *New Hampshire,* New York, Vermont, Wisconsin; Quebec.
Dryopteris Thelypteris (L.) A. Gray, Connecticut, Indiana, Montana, *Nebraska,* North Dakota; Nova Scotia, *Ontario.*

118. **Melampsoropsis Empetri.**
Empetrum nigrum L., Maine; British Columbia.
Melampsoropsis Pyrolae.
Moneses uniflora (L.) A. Gray, Montana, New Mexico, Washington; Alberta.
Pyrola asarifolia Michx., Idaho, Montana, New Mexico; British Columbia.
Pyrola chlorantha Sw., Montana.

Pyrola elliptica Nutt., Connecticut.
Pyrola rotundifolia L., Massachusetts, New York; Nova Scotia.
Pyrola secunda L., Montana, New Mexico, New York, Oregon; Newfoundland, Quebec.
Pyrola uliginosa Torr., Colorado, Wisconsin; Nova Scotia.

119. **Melampsoropsis ledicola.**
Ledum groenlandicum Oeder, Wisconsin; Manitoba, Nova Scotia, Yukon.
Melampsoropsis Cassandrae.
Chamaedaphne calyculata (L.) Moench, Connecticut; Nova Scotia, *Ontario.*
Melampsoropsis abietina.
Ledum glandulosum Nutt., *California*, Idaho, *Montana*, Nevada.
Ledum groenlandicum Oeder, Connecticut, Michigan, New York; British Columbia, Nova Scotia, Ontario.

120. **Melampsoropsis Arctostaphyli.**
Arctostaphylos Uva-Ursi (L.) Spreng., *Colorado*, Alaska, Utah.
Melampsoropsis Piperiana.
Rhododendron californicum Hook., California.

121. **Melampsoropsis Chiogenis.**
Chiogenes hispidula (L.) T. & G., New York.
Cronartium Comptoniae.
Comptonia peregrina (L.) Coult., Michigan, *New Hampshire*, Pennsylvania, Virginia, *Wisconsin.*
Myrica Gale L., Alaska; British Columbia, Nova Scotia.

122. **Cronartium Quercus.**
Pinus divaricata (Ait.) Sudw., Connecticut, Wisconsin.
Pinus rigida Mill., Connecticut.
Pinus Taeda L., Alabama, Florida, Virginia.
Pinus virginiana Mill., Delaware, North Carolina, South Carolina, Virginia, Tennessee.
Quercus alba L., *Arkansas*, North Carolina.
Quercus digitata (Marsh.) Sudw., *Delaware, North Carolina.*
Quercus macrocarpa Michx., *Missouri*, Wisconsin.
Quercus marylandica Moench, Alabama, *Arkansas, Delaware*, Mississippi, Virginia.
Quercus minor (Marsh.) Sarg., Texas.
Quercus nigra L., Delaware.
Quercus Prinus L., Texas, Virginia.
Quercus rubra L., Virginia.
Quercus velutina Lam., Connecticut, *Maryland, Virginia, West Virginia*, Wisconsin.
Quercus virginiana Mill., Texas; Cuba.

123. **Cronartium Comandrae.**
Comandra pallida A. DC., Arizona, *Idaho*, Minnesota, *Missouri*, New Mexico, *North Dakota, Oregon*, Utah; Alberta, Northwest Territory.
Comandra umbellata (L.) Nutt., Colorado, Delaware, Indiana, Mississippi, *New Hampshire*, Oregon; Quebec.
Cronartium coleosporioides.
Castilleja miniata Dougl., *California.*

127. **Pucciniosira pallidula.**
Triumfetta Lappula L., Salvador.
Triumfetta semitriloba L., Guatemala; Cuba; Santo Domingo; Porto Rico.

132. **Ravenelia Ingae.**
Inga vera Willd., Santo Domingo.

133. **Ravenelia Pithecolobii.**
Pithecolobium Unguis-Cati (L.) Benth., Porto Rico.

135. **Ravenelia siliquae.**
Vachellia Farnesiana (L.) Wight & Arn., Texas; Guatemala; Cuba; Porto Rico.
Ravenelia Acaciae-pennatulae.
Acacia pennatula Benth., Guatemala.

136. **Ravenelia versatilis.**
Acacia Greggii A. Gray, New Mexico.
Ravenelia igualica.
Acacia filicioides (Cav.) Trel., Texas; Guatemala.

138. **Ravenelia Mimosae-albidae.**
Mimosa albida Humb. & Bonpl., Guatemala; Costa Rica.
Mimosa albida floribunda B. L. Robinson, Guatemala.
Ravenelia cassiaecola.
Chamaecrista multipinnata (Pollard) Greene, *Georgia.*

139. **Ravenelia indica.**
Cassia hispidula Vahl, Cuba.
Ravenelia portoricensis.
Cassia emarginata L., Cuba; Jamaica; Haïti; Santo Domingo.

140. **Ravenelia papillifera.**
Cassia Lindheimeriana Scheele, Chihuahua.

141. **Ravenelia Humphreyana.**
Poinciana pulcherrima L., Costa Rica; Porto Rico.

142. **Ravenelia epiphylla.**
Cracca virginiana L., Indiana, Kentucky, *Louisiana, Mississippi, Tennessee, Virginia.*

143. **Ravenelia caulicola.**
Cracca cinerea (L.) Morong, Santo Domingo; Porto Rico.
Ravenelia Brongniartiae.
Brongniartia podalyrioides H.B.K., *Jalisco.*

144. **Ravenelia Piscidiae.**
Ichthyomethia Piscipula (L.) A. S. Hitchc., Cuba.
Ravenelia Indigoferae.
Indigofera Anil L. (*I. suffruticosa* Mill.), Guatemala; Santo Domingo; Porto Rico.

147. **Pileolaria Toxicodendri.**
Rhus radicans L., *Arkansas,* Connecticut, District of Columbia, *Kentucky,* Michigan, Oklahoma, South Dakota, *Tennessee, Virginia;* Manitoba; Morelos.
Rhus Rydbergii Small, *Colorado, Kansas, Missouri, Montana, Nebraska, North Dakota,* Oklahoma, *South Dakota,* Texas, Washington.

151. **Tranzschelia punctata.**
Anemone caroliniana Walt., *Nebraska,* Texas.
Anemone quinquefolia L., Connecticut, Delaware, Michigan, New Jersey; Quebec.
Hepatica Hepatica (L.) Karst., Connecticut.
Thalictrum dioicum L., Indiana.
Thalictrum purpurascens L., *Colorado.*
Amygdalus Persica L., Oregon; Bermuda; Cuba.
Armeniaca vulgaris Lam., *Mississippi,* New Mexico.
Padus serotina (Ehrh.) Ag., *Arkansas,* Connecticut, *Georgia,* Indiana, Michigan, Nebraska, New York, West Virginia; *Oaxaca;* Guatemala.

Padus virginiana (L.) Roem., Connecticut, Missouri; *Ontario.*
Prunus americana Marsh., *Colorado,* Iowa, *Nebraska,* Texas.
Prunus Besseyi L. H. Bailey, *South Dakota.*
Prunus domestica L., Florida, Oregon.
Prunus hortulana L. H. Bailey, *Arkansas, Missouri.*
Prunus Watsoni Sarg., Texas.

152. **Polythelis fusca.**
Anemone quinquefolia L., California, Connecticut, Minnesota, Oregon, West Virginia.

153. **Polythelis Pulsatillae.**
Pulsatilla hirsutissima (Pursh) Britton, Alaska, *North Dakota;* Saskatchewan.

* **Polythelis Thalictri.**
Thalictrum dioicum L., Michigan, Mississippi, New Jersey, *North Dakota.*
Thalictrum Fendleri Engelm., California, New Mexico.
Thalictrum polygamum Muhl., New Jersey; Nova Scotia.
Thalictrum sparsiflorum Turcz., *Utah,* Wyoming.
Thalictrum venulosum Trel., Montana.

155. **Uropyxis sanguinea.**
Mahonia Aquifolium (Pursh) Nutt., Oregon, Washington.

156. **Uropyxis Petalostemonis.**
Petalostemon candidus (Willd.) Michx., *Minnesota, North Dakota.*
Petalostemon purpureus (Vent.) Rydb., *Colorado.*

158. **Uropyxis Amorphae.**
Amorpha californica Nutt., *Arizona.*
Amorpha fruticosa L., *Colorado,* Missouri, New Mexico, Oklahoma, *Tennessee.*
Amorpha nana Nutt., *Kansas, New Mexico, North Dakota.*
Amorpha virgata Small, *Georgia.*

159. **Calliospora Holwayi.**
Eysenhardtia orthocarpa (A. Gray) S. Wats., Arizona.

160. **Prospodium appendiculatum.**
Stenolobium molle (H.B.K.) Seem., Guatemala.
Stenolobium Stans (L.) D. Don, Chihuahua, Jalisco, Puebla; Guatemala; Salvador; Nicaragua; Costa Rica; Panama; Bermuda; Jamaica; Santo Domingo; Porto Rico; St. Croix; Martinique; Barbados.

161. **Prospodium Lippiae.**
Lippia myriocephala Schlecht. & Cham., Costa Rica.

163. **Nephlyctis transformans.**
Stenolobium Stans (L.) D. Don, *Puebla;* Guatemala.

164. **Phragmidium Peckianum.**
Oreobatus deliciosus (James) Rydb., Arizona, Wyoming.

165. **Phragmidium imitans.**
Rubus leucodermis Dougl., Oregon.
Rubus strigosus Michx., California, Idaho, New Mexico, *North Dakota,* Utah, Wyoming; Labrador, Manitoba, Quebec.

166. **Phragmidium occidentale.**
Rubacer parviflorum (Nutt.) Rydb., Alaska, Arizona, Michigan, *Utah.*

167. **Phragmidium americanum.**
Rosa blanda Ait., New York, *Wisconsin.*
Rosa humilis Marsh., Massachusetts, Rhode Island.
Rosa virginiana Mill., New York.
Rosa sp., Michigan, North Dakota.

Phragmidium Rosae-setigerae.
Rosa carolina L., Connecticut, *Indiana*, Kansas, *Missouri*, Nebraska.

168. **Phragmidium Rosae-acicularis.**
Rosa acicularis Lindl., *Montana*; Manitoba.
Rosa heliophila Greene, Alberta, *Ontario*.
Rosa nutkana Presl, Oregon; Northwest Territory.
Rosa Sayi Schw., Montana, Wisconsin.

169. **Phragmidium montivagum.**
Rosa aciculata (Cockerell) Rydb., Utah.
Rosa Engelmanni S. Wats., Arizona, Idaho, Montana, Utah.
Rosa Fendleri Crépin, *Arizona*, New Mexico, *Utah*, Washington, *Wyoming*.
Rosa grosse-serrata E. Nels., Idaho.
Rosa gymnocarpa Nutt., Oregon.
Rosa Macounii Greene, Nevada, *South Dakota*.
Rosa Maximiliani Nees, New Mexico, *North Dakota*.

170. **Phragmidium Rosae-californicae.**
Rosa californica Cham. & Schlecht., Nevada; British Columbia.
Rosa gymnocarpa Nutt., British Columbia.
Rosa nutkana Presl, Alaska, *Oregon*.
Rosa pisocarpa A. Gray, California, Oregon.
Phragmidium Rosae-arkansanae.
Rosa Fendleri Crépin, Montana.
Rosa heliophila Greene, *North Dakota;* Alberta.
Rosa Maximiliani Nees, Montana, North Dakota, Wisconsin.

171. **Phragmidium disciflorum.**
Rosa alba L., *New York*.
Rosa gallica L., Idaho, North Dakota.
Rosa sp., Florida, Indiana, Montana, Oregon, Washington; British Columbia, Ontario, Quebec; Jalisco; Guatemala.

172. **Phragmidium subcorticinum.**
Rosa spinosissima L., Wisconsin.

173. **Phragmidium Andersoni.**
Dasiphora fruticosa (L.) Rydb., *Idaho*, Minnesota, Montana, New Mexico, *North Dakota*, *South Dakota*, Wisconsin.

174. **Phragmidium Ivesiae.**
Potentilla Bakeri Rydb., Idaho.
Potentilla Blaschkeana Turcz., Oregon.
Potentilla filipes Rydb., Oregon.
Potentilla flabelliformis Lehm., Montana, Wyoming; Alberta.
Potentilla glomerata A. Nels., Alberta.
Potentilla Hippiana Lehm., Montana.
Potentilla monspeliensis L., Montana.
Potentilla Nuttallii Lehm., Idaho, Washington.
Potentilla pulcherrima Lehm., *Colorado*, Montana.
Phragmidium Potentillae.
Potentilla arachnoidea Dougl., Oregon.
Potentilla bipinnatifida Dougl., Alberta, Northwest Territory.
Potentilla monspeliensis L., Connecticut, Pennsylvania.
Potentilla pectinata Raf., New Hampshire.
Potentilla pennsylvanica L., *Montana*, *Nebraska*, *North Dakota*.
Potentilla strigosa Pall., *Wyoming*.

175. **Earlea speciosa.**
Rosa carolina L., Connecticut, Mississippi, Pennsylvania.
Rosa humilis Marsh., North Carolina.
Rosa Maximiliani Nees, *Colorado, Montana.*
Rosa virginiana Mill., Indiana, Massachusetts, Missouri, New York.

179. **Ameris rosicola.**
Rosa Engelmanni S. Wats., Montana.
Nyssopsora echinata.
Ligusticum purpureum Coult. & Rose, Oregon.

180. **Nyssopsora clavellosa.**
Aralia nudicaulis L., Idaho.
Gymnoconia interstitialis.
Rubus allegheniensis Porter, Michigan; Ontario.
Rubus occidentalis L., Indiana, *Michigan*, South Dakota; New Brunswick, *Ontario.*
Rubus sp. (cult.), *Missouri.*

184. **Spirechina Rubi.**
Rubus adenotrichos Schlecht., Salvador.

185. **Kuehneola obtusa.**
Potentilla canadensis L., Alabama, *Arkansas*, Delaware, Louisiana, Maryland, Mississippi, New Hampshire, *New Jersey*, Tennessee.
Kuehneola Duchesneae.
Duchesnea indica (Andr.) Focke, Kentucky, Maryland, New York, Tennessee, Virginia.

186. **Kuehneola Uredinis.**
Rubus allegheniensis Porter, Connecticut, *Kentucky*, Michigan, *Missouri*, Rhode Island, South Carolina, *Tennessee*, Virginia, *Wisconsin.*
Rubus Andrewsianus Blanch., New York.
Rubus canadensis L., New York, Virginia.
Rubus hispidus L., Indiana, Wisconsin.
Rubus trivialis Michx., Florida.
Rubus villosus Ait., *Illinois*, Mississippi, New York; Ontario.

187. **Kuehneola malvicola.**
Hibiscus Syriacus L., *Alabama*, Mississippi.
Malvaviscus arboreus Cav., Costa Rica; Cuba.

191. **Gymnosporangium inconspicuum.**
Juniperus utahensis (Engelm.) Lemm., Utah.

192. **Gymnosporangium Harknessianum.**
Amelanchier alnifolia Nutt., Oregon.
Gymnosporangium multiporum.
Juniperus monosperma (Engelm.) Sarg., *New Mexico.*

193. **Gymnosporangium Davisii.**
Aronia nigra (Willd.) Britton, *New Hampshire.*
Gymnosporangium juvenescens.
Amelanchier alnifolia Nutt., Idaho, *North Dakota*, Oregon, Utah, Washington; Saskatchewan.
Amelanchier florida Lindl., Utah.
Amelanchier oreophila A. Nels., Idaho.
Amelanchier polycarpa Greene, Utah.
Amelanchier pumila Nutt., Colorado.
Juniperus scopulorum Sarg., Arizona, Idaho, *Montana*, *New Mexico*, Oregon, Utah, Wyoming.

194. **Gymnosporangium Kernianum.**
Juniperus utahensis (Engelm.) Lemm., *Idaho*, Nevada.
Gymnosporangium trachysorum.
Juniperus virginiana L., Louisiana.

195. **Gymnosporangium tubulatum.**
Crataegus Douglasii Lindl., *Idaho*, Oregon, Washington, *Wyoming*.
Gymnosporangium Botryapites.
Amelanchier canadensis (L.) Medic., *New York*.
Chamaecyparis thyoides (L.) B.S.P., Rhode Island.

196. **Gymnosporangium Nidus-avis.**
Amelanchier canadensis (L.) Medic., New Jersey, New York, *Pennsylvania*.
Juniperus virginiana L., Missouri, Nebraska, New York.

197. **Gymnosporangium germinale.**
Amelanchier canadensis (L.) Medic., Indiana, *Massachusetts*, Michigan; Nova Scotia.
Amelanchier intermedia Spach, New Jersey.
Amelanchier rotundifolia (Michx.) Roem., Maine.
Crataegus Crus-galli L., Texas.
Crataegus mollis (T. & G.) Scheele, Michigan.
Crataegus punctata Jacq., Michigan, Missouri, West Virginia.
Crataegus spathulata Michx., Georgia, Virginia.
Cydonia vulgaris (L.) Pers., Indiana.
Malus Malus (L.) Britton, Connecticut.
Juniperus communis L., Michigan.
Juniperus sibirica Burgsd., Wyoming.
Juniperus virginiana L., Arkansas, Florida, Indiana, Louisiana, Texas; Ontario.

198. **Gymnosporangium cornutum.**
Sorbus americana Marsh., Connecticut; *New Brunswick*.
Sorbus scopulina Greene, Michigan, *Montana*.

199. **Gymnosporangium exterum.**
Porteranthus stipulatus (Muhl.) Britton, Indiana.
Gymnosporangium juniperinum.
Sorbus occidentalis (S. Wats.) Greene, Oregon, Washington; Alberta.
Sorbus sitchensis Roem., Alaska, Washington.
Juniperus sibirica Burgsd., Oregon, Utah, Washington, Wyoming.

200. **Gymnosporangium gracilens.**
Fendlera rupicola Engelm. & Gray, Arizona, Colorado.
Philadelphus microphyllus A. Gray, New Mexico.
Philadelphus occidentalis A. Nelson, *Utah*.

201. **Gymnosporangium effusum.**
Juniperus virginiana L., Virginia.
Gymnosporangium japonicum.
Juniperus chinensis L., New Jersey, Washington.

202. **Gymnosporangium transformans.**
Aronia arbutifolia (L.) Ell., Delaware.
Gymnosporangium clavariaeforme.
Amelanchier alnifolia Nutt., Montana, South Dakota, Utah, Wyoming.
Amelanchier canadensis (L.) Medic., Indiana, Michigan; Nova Scotia.
Amelanchier oblongifolia (T. & G.) Roem., Maine.
Amelanchier pumila Nutt., *Utah*.
Juniperus communis L., *Michigan*, Montana, Pennsylvania.
Juniperus sibirica Burgsd., Montana.

204. **Gymnosporangium Betheli.**
Crataegus coloradensis A. Nelson, South Dakota.
Crataegus Douglasii Lindl., Idaho, Utah; British Columbia.
Crataegus erythropoda Ashe, New Mexico.
Crataegus rivularis Nutt., *Utah.*
Juniperus scopulorum Sarg., Idaho, *New Mexico, North Dakota,* Utah, Washington.
Gymnosporangium globosum.
Crataegus anomala Sarg., New York.
Crataegus coccinea L., *Pennsylvania,* South Dakota; *Ontario.*
Crataegus Crus-galli L., *Ohio.*
Crataegus polita Tatnalliana (Sarg.) Eggl. (cult.), New York.
Crataegus rotundifolia Moench, Missouri, New York.
Crataegus tomentosa L., *Kentucky.*
Malus Malus (L.) Britton, Missouri, New Jersey.
Pyrus communis L., Pennsylvania.
Sorbus americana Marsh., New York.
Juniperus virginiana L., Oklahoma.

206. **Gymnosporangium hyalinum.**
Crataegus viridis L., North Carolina.

207. **Gymnosporangium Nelsoni.**
Amelanchier alnifolia Nutt., *Montana, Nebraska, New Mexico; Alberta,* British Columbia.
Amelanchier oreophila A. Nels., New Mexico.
Cydonia vulgaris (L.) Pers., Arizona.
Peraphyllum ramosissimum Nutt., Utah.
Pyrus communis L., *Arizona.*
Sorbus occidentalis (S. Wats.) Greene, Washington.
Juniperus monosperma (Engelm.) Sarg., Arizona.
Juniperus scopulorum Sarg., Idaho, *New Mexico, North Dakota,* Oregon.

208. **Gymnosporangium corniculans.**
Juniperus horizontalis Moench, Saskatchewan.
Gymnosporangium floriforme.
Crataegus spathulata Michx., Mississippi.
Juniperus virginiana L., Arkansas, Oklahoma.

209. **Gymnosporangium Juniperi-virginianae.**
Malus baccata (L.) Desf., Connecticut, Missouri, Nebraska, Virginia.
Malus coronaria (L.) Mill., Missouri, Virginia.
Malus ioensis (Wood) Britton, Mississippi, *North Dakota.*
Malus Malus (L.) Britton, Missouri.
Juniperus virginiana L., Louisiana, Rhode Island.

222. **Nigredo Sparganii.**
Sparganium eurycarpum Engelm., Michigan; Quebec.

223. **Nigredo pedatata.**
Viola primulaefolia L., Pennsylvania, West Virginia.
Viola sagittata L., West Virginia.
Andropogon virginicus L., Indiana, *Missouri,* New York, *Virginia.*

224. **Nigredo Clignyi.**
Andropogon hirtiflorus Kunth, Guatemala.
Nigredo graminicola.
Panicum virgatum L., Connecticut, Delaware, Indiana, New Mexico, New York, *Wisconsin.*

Nigredo leptoderma.
Panicum barbinode Trin., Salvador; Panama; Santo Domingo; Porto Rico; St. Croix.

225. **Nigredo seditiosa.**
Plantago aristata Michx., Indiana.
Plantago eriopoda Torr., *Nebraska*, North Dakota, Washington; Alberta.
Plantago Purshii R. & S., Oklahoma.
Plantago virginica L., Oklahoma.
Aristida basiramea Engelm., Oklahoma, Texas.
Aristida dichotoma Michx., Alabama, Texas.
Aristida oligantha Michx., Illinois, Indiana, *Louisiana*, Missouri, Nebraska, Oklahoma, *Tennessee.*
Aristida purpurascens Poir., Texas, Virginia.
Aristida purpurea Nutt., *Missouri.*

226. **Nigredo Halstedii.**
Homalocenchrus oryzoides (L.) Poll., Texas, *Wisconsin.*
Homalocenchrus virginicus (Willd.) Britton, Maryland.

227. **Nigredo Sporoboli.**
Sporobolus asper (Michx.) Kunth, South Dakota.

Nigredo Eragrostidis.
Eragrostis limbata Fourn., Guatemala; Costa Rica.
Eragrostis neo-mexicana Vasey, Jalisco.
Eragrostis pectinacea (Michx.) Steud., Delaware, New Jersey, Oklahoma.
Eragrostis tephrosanthus Schult., Cuba.

Nigredo Alopecuri.
Alopecurus aristulatus Michx., Saskatchewan.

228. **Nigredo Hordei.**
Hordeum pusillum Nutt., Arkansas, Indiana, *Missouri*, Oklahoma.

Nigredo mystica.
Hordeum jubatum L., *Idaho*, New Mexico.

229. **Nigredo Epicampis.**
Epicampes macroura (H.B.K.) Benth., Guatemala.

230. **Nigredo Peckiana.**
Atriplex patula L., California, Washington; British Columbia.
Distichlis spicata (L.) Greene, Connecticut; *British Columbia.*

231. **Nigredo Polemonii.**
Steironema ciliatum (L.) Raf., Connecticut, New York, Wisconsin.
Phlox divaricata L., Minnesota.
Phlox pilosa L., Iowa.
Polemonium reptans L., Wisconsin.
Spartina glabra alterniflora (Loisel.) Merr., Connecticut.
Spartina gracilis Trin., Montana.
Spartina Michauxiana Hitchc., Minnesota, *Montana*, New York; Manitoba.

232. **Nigredo Eleocharidis.**
Eleocharis palustris (L.) R. & S., Minnesota.

Nigredo Rhyncosporae.
Rynchospora distans (Michx.) Vahl, Porto Rico.
Rynchospora fascicularis (Michx.) Vahl, Cuba.
Rynchospora glomerata (L.) Vahl, *Arkansas*, Connecticut, District of Columbia, *Georgia*, Indiana, *Mississippi.*

233. **Nigredo Scirpi.**
Cicuta maculata L., District of Columbia.
Scirpus americanus Pers., Indiana, Texas, Wisconsin; Bermuda.
Scirpus fluviatilis (Torr.) A. Gray, Indiana; Quebec.
Scirpus pacificus Britton, Washington.
Scirpus paludosus A. Nelson, *California*, Maine, Oregon, *Wyoming*.
Scirpus robustus Pursh, *Massachusetts*.
Scirpus validus Vahl, Indiana.

234. **Nigredo minuta.**
Carex virescens Muhl., New York.
Nigredo valens.
Carex lupulina Muhl., Wisconsin.

235. **Nigredo perigynia.**
Carex flava L., New York.
Carex intumescens Rudge, New York.
Carex Novae-Angliae Schw., Maine.
Carex tribuloides Wahl., Delaware, Indiana, Michigan, Virginia.
Nigredo uniporula.
Carex gracillima Schw., Michigan.
Carex tenuis Rudge, North Carolina.

236. **Nigredo Caladii.**
Arisaema triphyllum (L.) Schott., Michigan, *North Dakota*, Tennessee, Virginia; Quebec.
Muricauda Dracontium (L.) Small, Delaware, Oklahoma.
Peltandra glauca (Ell.) Feay, New York.
Peltandra virginica (L.) Kunth, Connecticut, Michigan.

237. **Nigredo Commelinae.**
Commelina angustifolia Michx., Texas; Cuba.
Commelina elegans H.B.K., Porto Rico; St. Thomas.

238. **Nigredo Junci.**
Ambrosia psilostachya DC., *California*.
Arnica cordifolia Hook., Oregon.
Cirsium Flodmanii (Rydb.) Arth., Montana, Nebraska; Manitoba.
Juncus balticus Willd., Nevada, *Oregon*, Pennsylvania; Manitoba, Saskatchewan.
Juncus Lescurii Boland., Oregon.
Juncus mexicanus Willd., Nevada, New Mexico.

239. **Nigredo Silphii.**
Silphium perfoliatum L., Missouri.
Silphium terebinthinaceum Jacq., Michigan.
Juncus Dudleyi Wiegand, *Connecticut*, Michigan, Pennsylvania, *Tennessee*, Wyoming.
Juncus longistylis Torr., New Mexico, North Dakota.
Juncus tenuis Willd., Connecticut, *Illinois*, Maryland, *Ohio*, Pennsylvania, Tennessee, Vermont.
Nigredo Junci-effusi.
Juncus effusus L., Alabama, Connecticut, Indiana, Virginia.
Juncus ensifolius Wikstr., Idaho, Utah.

240. **Nigredo Zygadeni.**
Toxicoscordion Nuttallii (A. Gray) Rydb., Texas.
Toxicoscordion paniculatum (Nutt.) Rydb., Nevada.

241. **Nigredo aemula.**
Allium acuminatum Hook., Colorado.
Allium validum S. Wats., Oregon.

242. **Nigredo Lilii.**

Lilium canadense L., Michigan.
Lilium candidum L., *Massachusetts.*
Lilium columbianum Hanson, Idaho, Oregon.
Lilium superbum L., Connecticut.
Lilium umbellatum Pursh, Idaho.

Nigredo houstoniata.

Houstonia caerulea L., Indiana, Maine, *New York.*

243. **Nigredo proba.**

Olsynium grandiflorum (Dougl.) Raf., Utah.

Nigredo Polygoni.

Polygonum aviculare L., Alaska, Idaho, *Missouri, New Hampshire,* Oregon, Pennsylvania, Rhode Island, Wyoming; Quebec.
Polygonum erectum L., *California; Ontario.*
Polygonum maritimum L., *Massachusetts.*

244. **Nigredo intricata.**

Eriogonum campanulatum Nutt., *Wyoming.*
Eriogonum compositum Dougl., Oregon.
Eriogonum croceum Small, Oregon.
Eriogonum fasciculatum Benth., Arizona.
Eriogonum flavum Nutt., North Dakota.
Eriogonum heracleoides Nutt., Wyoming.
Eriogonum microthecum Nutt., Oregon, Utah.
Eriogonum multiceps Nees, *Montana, North Dakota.*
Eriogonum racemosum Nutt., New Mexico, Utah.
Eriogonum subalpinum Greene, California.
Eriogonum umbellatum Torr., *California.*
Eriogonum virgatum Benth., *Colorado,* Wyoming.

246. **Nigredo caryophyllina.**

Dianthus Caryophyllus L., Alaska, California, Connecticut, Delaware, *Missouri,* Mississippi, New Jersey, Oklahoma, Oregon, Washington; Quebec; Cuba.

247. **Nigredo Silenes.**

Silene Douglasii multicaulis (Nutt.) B. L. Robinson, Montana.

Nigredo Lespedezae-procumbentis.

Lespedeza angustifolia (Pursh) Ell., Minnesota.
Lespedeza capitata Michx., Michigan.
Lespedeza frutescens (L.) Britton, *Georgia,* Indiana, Missouri, *South Carolina, Virginia.*
Lespedeza hirta (L.) Hornem., *Arkansas,* Kentucky, *Michigan, Mississippi, New Jersey, North Carolina,* Texas, Virginia.
Lespedeza procumbens Michx., *Georgia,* Maryland, Mississippi, Pennsylvania, Texas, Virginia.
Lespedeza repens (L.) Bart., *North Carolina.*
Lespedeza violacea (L.) Pers., Arkansas, Connecticut, Massachusetts, Pennsylvania, Virginia.
Lespedeza virginica (L.) Britton, Georgia, *Louisiana,* Maryland, New York, Texas, Virginia.

248. **Nigredo Hedysari-paniculati.**

Meibomia bracteosa (Michx.) Kuntze, South Carolina.
Meibomia canadensis (L.) Kuntze, Kentucky, Michigan, Mississippi.
Meibomia canescens (L.) Kuntze, *Arkansas, Georgia, Kentucky, Louisiana,* Tennessee.
Meibomia Dillenii (Darl.) Kuntze, *Georgia,* Illinois, New York, Tennessee, Virginia, *West Virginia.*

Meibomia laevigata (Nutt.) Kuntze, *Kentucky.*
Meibomia marilandica (L.) Kuntze, *Michigan, Mississippi,* New York, *Tennessee,* Texas.
Meibomia Michauxii Vail, Indiana, South Carolina, *Vermont,* Virginia.
Meibomia obtusa (Muhl.) Vail, Delaware, New York, *Texas.*
Meibomia paniculata (L.) Kuntze, District of Columbia, *Georgia, Louisiana, Maryland,* Massachusetts, *Oklahoma,* Virginia.
Meibomia pauciflora (Nutt.) Kuntze, Missouri.
Meibomia rigida (Ell.) Kuntze, *Massachusetts,* Missouri.
Meibomia sessilifolia (Torr.) Kuntze, Oklahoma, Texas.
Meibomia stricta (Pursh) Kuntze, Delaware.
Meibomia viridiflora (L.) Kuntze, Kentucky, *Missouri, New Jersey.*

250. **Nigredo Indigoferae.**
Indigofera mucronata Spreng., Salvador; Costa Rica.

251. **Nigredo Fabae.**
Lathyrus arizonicus Britton, Arizona, New Mexico.
Lathyrus decaphyllus Pursh, New Mexico.
Lathyrus leucanthus Rydb., Idaho.
Lathyrus ochroleucus Hook., Michigan, *South Dakota;* Alberta, Manitoba.
Lathyrus pauciflorus Fernald, Oregon.
Lathyrus sulphureus Brewer, California, Oregon.
Lathyrus utahensis M. E. Jones, *Colorado.*
Lathyrus venosus Muhl., *North Dakota.*
Vicia americana Muhl., Arizona, Idaho, Missouri, New Mexico, Oregon; British Columbia, Northwest Territory, Saskatchewan.
Vicia Cracca L., *Connecticut;* Quebec.
Vicia Faba L., California; Guatemala.
Vicia linearis (Nutt.) Greene, Arizona, Minnesota, Oregon, Wyoming.

252. **Nigredo Lupini.**
Lupinus argenteus Pursh, Wyoming.
Lupinus laxiflorus Dougl., Oregon.
Lupinus polyphyllus Lindl., Oregon.
Lupinus rivularis Dougl., Oregon.
Nigredo occidentalis.
Lupinus Kingii S. Wats., New Mexico.

253. **Nigredo substriata.**
Lupinus argenteus Pursh, *Wyoming.*
Lupinus laxiflorus Dougl., Montana.
Nigredo punctata.
Aragallus albiflorus A. Nels., *Wyoming.*
Aragallus Lamberti (Pursh) Greene, *North Dakota, Wyoming.*
Aragallus sericeus (Nutt.) Greene, Wyoming.
Astragalus Bigelovii A. Gray, New Mexico.
Astragalus canadensis L., Minnesota, Wisconsin.
Astragalus crassicarpus Nutt., Minnesota.
Astragalus glareosus Dougl., *Utah,* Washington.
Astragalus mollissimus Torr., *Wyoming.*
Astragalus nitidus Dougl., Colorado, *North Dakota.*
Astragalus Purshii Dougl., Montana, Oregon.

254. **Nigredo fallens.**
Trifolium medium L., New York.
Trifolium pratense L., California, Connecticut, District of Columbia, Idaho, Michigan, *Montana, New Hampshire, New Jersey, North Dakota,* Oklahoma, *Oregon, Rhode Island,* Utah, *Vermont,* Virginia, *Wisconsin, Wyoming;* Ontario.

255. **Nigredo Trifolii.**

Trifolium amabile H.B.K., Guatemala.

Trifolium hybridum L., *Delaware*, Maryland, *Montana*, *Nebraska*, New Hampshire, New Jersey, Oregon, *Pennsylvania*, Rhode Island, *Virginia*, *Wisconsin; Ontario.*

Trifolium repens L., *California*, Idaho, Michigan, Missouri, New Hampshire, New Jersey, Oregon, Rhode Island, Virginia, *Washington;* Ontario.

256. **Nigredo Cologaniae.**

Cologania pulchella H.B.K., Costa Rica.

Nigredo Medicaginis.

Medicago denticulata Willd., Hidalgo; Bermuda.

Medicago lupulina L., Kentucky, Pennsylvania; Hidalgo.

Medicago sativa L., *California*, Kentucky, Mississippi, New Mexico, Oklahoma, Pennsylvania, Tennessee, Utah; Cuba.

257. **Nigredo appendiculata.**

Dolichos Lablab L., Cuba; Porto Rico.

Phaseolus lunatus L., California; Guatemala.

Phaseolus vulgaris L., California, *Colorado*, Connecticut, *Kentucky*, *Missouri*, *New Hampshire*, New Mexico, Pennsylvania, *Tennessee*, Virginia; *Ontario;* Salvador; Panama; Haïti.

Strophostyles helvola (L.) Britton, *Arkansas*, Connecticut, Tennessee.

Strophostyles pauciflora (Benth.) S. Wats., New Mexico, *Oklahoma*, *South Dakota*, Texas.

Vigna repens (L.) Kuntze, Cuba; Santo Domingo; Porto Rico.

Vigna sinensis (L.) Endl., Alabama, Missouri, Virginia.

259. **Nigredo proëminens.**

Adenopetalum gramineum (Jacq.) Arth., Guatemala.

Chamaesyce albomarginata (T. & G.) Small, Arizona, New Mexico, Texas.

Chamaesyce brasiliensis (Lam.) Small, Santo Domingo; Porto Rico.

Chamaesyce Fendleri (T. & G.) Small, *Colorado.*

Chamaesyce Geyeri (Engelm.) Small, *Kansas*, *Wyoming.*

Chamaesyce glyptosperma (Engelm.) Small, New Mexico.

Chamaesyce hirsuta (Torr.) Arth., *Ontario.*

Chamaesyce hirta (L.) Millsp., Arizona; Guatemala; Salvador; Panama; Cuba; Santo Domingo.

Chamaesyce humistrata (Engelm.) Small, Kansas, *Kentucky*, Michigan, Oklahoma, Pennsylvania, *Tennessee; Ontario.*

Chamaesyce hypericifolia (L.) Millsp., Santo Domingo.

Chamaesyce lata (Engelm.) Small, Colorado.

Chamaesyce maculata (L.) Small, *Colorado*, Michigan, New York, Pennsylvania, Virginia, West Virginia.

Chamaesyce petaloidea (Engelm.) Small, *Colorado.*

Chamaesyce Preslii (Guss.) Arth., *Alabama*, District of Columbia, *Kentucky*, *Michigan*, *Oklahoma*, Tennessee, *Virginia*, West Virginia, *Wisconsin;* Salvador.

Chamaesyce prostrata (Ait.) Small, Texas; Haïti; Santo Domingo; Porto Rico.

Chamaesyce serpens (H.B.K.) Small, Panama; Porto Rico.

Chamaesyce serpyllifolia (Pers.) Small, Mississippi.

Dichrophyllum marginatum (Pursh) Klotzsch & Garcke, Oklahoma.

Poinsettia dentata (Michx.) Small, New Mexico, Oklahoma, Virginia.

Poinsettia heterophylla (L.) Klotzsch & Garcke, Florida, Illinois, Mississippi, Missouri, Texas; Salvador; Porto Rico.

261. **Nigredo Hyperici-frondosi.**

Ascyrum hypericoides L., New Jersey, Texas.

Hypericum ellipticum Hook., *Maryland*, *New Hampshire.*

Hypericum majus (A. Gray) Britton, Maryland, *New Hampshire*, Pennsylvania, Wisconsin.
Hypericum mutilum L., *New Hampshire.*
Hypericum prolificum L., Indiana, Pennsylvania, Texas.
Triadenum virginicum (L.) Raf., Delaware, *Nebraska.*

262. **Nigredo plumbaria.**
Gaura biennis L., Illinois, *Maryland*, Texas, Virginia, Wisconsin.
Gaura coccinea Pursh, *Nevada, New Mexico*, North Dakota, *Wyoming;* Saskatchewan.
Gaura sinuata Nutt., Oklahoma.
Oenothera laciniata Hill, *Kansas*, New Jersey, Oklahoma, Texas.
Onagra biennis (L.) Scop., Delaware, Missouri, Oklahoma, Texas.
Pachylophus macroglottis Rydb., Colorado.
Pachylophus montanus (Nutt.) A. Nels., Idaho, Montana, Utah.

264. **Nigredo Gentianae.**
Amarella strictiflora (Rydb.) Greene, New Mexico, *Wyoming.*
Nigredo Howei.
Asclepias Curassavica L., Florida; Guatemala; Cuba.
Asclepias incarnata L., Connecticut, Virginia.
Asclepias phytolaccoides Pursh, Virginia.
Asclepias pulchra Ehrh., Virginia.
Asclepias syriaca L., Connecticut, Minnesota, Mississippi, Tennessee.
Asclepiodora decumbens (Nutt.) A. Gray, New Mexico.
Ibatia muricata (L.) Decaisne, Porto Rico.

265. **Nigredo Ruelliae.**
Beloperone californica Benth., Nevada.

266. **Nigredo Spermacoces.**
Diodia teres Walt., *Alabama*, Indiana, Maryland, *Oklahoma.*

267. **Nigredo Helleriana.**
Cayaponia racemosa (Sw.) Cogn., Salvador; Cuba.

277. **Dicaeoma Sorghi.**
Xanthoxalis stricta (L.) Small, Michigan.
Euchlaena mexicana Schrad., Nebraska.
Zea Mays L., *Georgia, Tennessee;* Costa Rica; Santo Domingo; Porto Rico.

278. **Dicaeoma pallescens.**
Zea Mays L., Santo Domingo.

279. **Dicaeoma polysorum.**
Tripsacum latifolium Hitchc., Virginia.
Dicaeoma Ceanothi.
Andropogon Hallii Hack., New Mexico.
Tripsacum dactyloides L., Texas.

280. **Dicaeoma virgatum.**
Sorghastrum nutans (L.) Nash, Tennessee.
Dicaeoma Mariae-Wilsoni.
Viola Nuttallii Pursh, South Dakota, Wyoming.

281. **Dicaeoma Andropogonis.**
Aureolaria flava (L.) Farwell, Connecticut.
Aureolaria virginica (L.) Pennell, Tennessee.
Castilleja sessiliflora Pursh, Kansas.
Penstemon grandiflorus Nutt., North Dakota.
Penstemon hirsutus (L.) Willd., Georgia.
Andropogon scoparius Michx., Connecticut, *Georgia, Minnesota, Mississippi*, New Mexico, *North Carolina*, Rhode Island.

283. **Dicaeoma Kaernbachii.**
Andropogon condensatus H.B.K., Veracruz; Grenada.

284. **Dicaeoma purpureum.**
Holcus halepensis L., Santo Domingo; Porto Rico.
Holcus Sorghum L., *Louisiana;* Haïti.

286. **Dicaeoma leve.**
Paspalum fimbriatum H.B.K., St. Croix.

287. **Dicaeoma Huberi.**
Panicum fasciculatum Sw., Panama.
Dicaeoma macrum.
Paspalum candidum (Humb. & Bonpl.) Kunth, Costa Rica.

288. **Dicaeoma tubulosum.**
Axonopus compressus (Sw.) Beauv., Louisiana.
Paspalum conjugatum Berg., Florida.
Paspalum paniculatum L., Panama.
Syntherisma digitata (Sw.) Hitchc., Costa Rica.
Syntherisma sanguinalis (L.) Dulac, California; Santo Domingo.
Valota insularis (L.) Chase, Santo Domingo.

289. **Dicaeoma substriatum.**
Paspalum floridanum Michx., *Oklahoma.*

290. **Dicaeoma impositum.**
Leptoloma cognatum (Schultes) Chase, New Mexico.
Dicaeoma emaculatum.
Panicum capillare L., Connecticut, Massachusetts, *New Hampshire.*

291. **Dicaeoma Pammelii.**
Panicum virgatum L., Connecticut, *Oklahoma.*

292. **Dicaeoma eslavense.**
Valota insularis (L.) Chase, Porto Rico; St. Thomas.
Dicaeoma flaccidum.
Echinochloa Crus-galli (L.) Beauv., Wisconsin.

294. **Dicaeoma Cenchri.**
Cenchrus echinatus L., Santo Domingo; St. Croix.
Cenchrus viridis Spreng., Santo Domingo.

295. **Dicaeoma poculiforme.**
Berberis canadensis Mill., Indiana.
Berberis vulgaris L., Connecticut; Saskatchewan.
Agropyron repens (L.) Beauv., Connecticut, New Hampshire.
Agrostis alba L., Mississippi.
Agrostis hyemalis (Walt.) B.S.P., Connecticut.
Agrostis perennans (Walt.) Tuckerm., Massachusetts, Pennsylvania.
Alopecurus aristulatus Michx., California.
Avena fatua glabrata Peterm., Washington.
Avena sativa L., Arizona, Connecticut, Kentucky, Pennsylvania, Washington.
Bromus secalinus L., Illinois.
Calamagrostis canadensis (Michx.) Beauv., Connecticut.
Cinna arundinacea L., Nebraska.
Dactylis glomerata L., Colorado, Connecticut, Pennsylvania.
Elymus condensatus Presl, Idaho.
Elymus glaucus Buckl., Utah.
Elymus virginicus L., Indiana, Wisconsin.

Festuca pacifica Piper, California.
Hordeum jubatum L., Kentucky.
Hordeum vulgare L., Alberta.
Koeleria cristata (L.) Pers., California.
Phleum pratense L., Connecticut, Idaho, Oklahoma, Utah.
Sporobolus cryptandrus (Torr.) A. Gray, South Dakota.
Triticum aestivum L., Virginia; Alberta.

298. **Dicaeoma Majanthae.**
Polygonatum biflorum (Walt.) Ell., Connecticut, New York.
Uvularia sessilifolia L., Mississippi.
Vagnera racemosa (L.) Morong, Connecticut, New York.
Vagnera sessilifolia (Baker) Greene, California.
Vagnera stellata (L.) Morong, Connecticut, South Dakota.

299. **[Allodus] interveniens** (see page 797).
Phymosia rivularis (Dougl.) Rydb., Idaho.
Sidalcea neo-mexicana A. Gray, Wyoming.

300. **Dicaeoma Stipae.**
Lygodesmia juncea (Pursh) D. Don, Saskatchewan.
Chrysopsis villosa (Pursh) Nutt., Wyoming.
Chrysothamnus graveolens (Nutt.) Greene, Washington.
Solidago glaberrima Martens, Alberta.
Stipa comata Trin. & Rupr., Alberta.

302. **Dicaeoma scaber.**
Stipa Lettermani Vasey, Utah.
Stipa Vaseyi Scribn., *South Dakota.*
Stipa viridula Trin., Alberta.
Dicaeoma micranthum.
Grossularia leptantha (A. Gray) Cov. & Britt., Utah.

303. **Dicaeoma verbenicola.**
Verbena hastata L., Indiana.
Sporobolus asper (Michx.) Kunth, Missouri.

304. **Dicaeoma simulans.**
Sporobolus cryptandrus (Torr.) A. Gray, Arizona.

305. **Dicaeoma Sarcobati.**
Triglochin maritima L., Alberta.
Atriplex rosea L., Nevada.
Chenopodium album L., Alberta.
Monolepis Nuttalliana (Schultes) Engelm., *Nevada.*
Salsola Pestifer A. Nelson, Nevada.
Sarcobatus vermiculatus (Hook.) Torr., *California.*
Bursa Bursa-pastoris (L.) Britton, *Nevada,* Utah.
Lepidium perfoliatum L., Nevada.
Sophia intermedia Rydb., Utah.
Gilia inconspicua (J. E. Smith) Dougl., Colorado.
Heliotropium xerophilum Cockerell, Texas.
Lappula occidentalis (S. Wats.) Greene, Colorado.
Pleuraphis Jamesii Torr., *New Mexico.*

308. **Dicaeoma hibisciatum.**
Althaea rosea L., Kansas.
Callirhoë involucrata (T. & G.) A. Gray, Colorado.
Gossypium hirsutum L., Arizona.
Napaea dioica L., *Illinois.*
Muhlenbergia racemosa (Michx.) B.S.P., Missouri.

Muhlenbergia repens (Presl) Hitchc., Arizona.
Muhlenbergia Schreberi Gmel., *Kentucky, Missouri, Oklahoma, South Carolina, Tennessee.*
Sporobolus airoides Torr., *South Dakota; Wyoming.*
Sporobolus asperifolius (Nees & Meyen) Thurber, *California, Wyoming.*

310. **Dicaeoma amphigenum.**
Calamovilfa longifolia (Hook.) Hack., Alberta.

311. **Dicaeoma holcinum.**
Notholcus lanatus (L.) Nash, Connecticut.

312. **Dicaeoma monoicum.**
Arabis Drummondii A. Gray, Alberta.
Arabis retrofracta Graham, *California*, Washington.
Smelowskia calycina (Desv.) C. Meyer, Colorado.
Koeleria cristata (L.) Pers., *California.*

313. **Dicaeoma Rhamni.**
Rhamnus alnifolia L'Hér., Indiana, *North Dakota*, Washington; Saskatchewan.
Rhamnus cathartica L., Connecticut; *Ontario*, Saskatchewan.
Elaeagnus commutata Bernh., Saskatchewan.
Lepargyraea argentea (Nutt.) Greene, Saskatchewan.
Lepargyraea canadensis (L.) Greene, Alaska; Saskatchewan.
Avena sativa L., Saskatchewan.
Beckmannia erucaeformis (L.) Host, Saskatchewan.
Bromus Pumpellianus Scribn., Alberta.
Calamagrostis canadensis (Michx.) Beauv., Connecticut; *British Columbia.*
Cinna latifolia (Trev.) Griseb., Idaho, Washington.
Deschampsia caespitosa (L.) Beauv., Alberta, Saskatchewan.
Festuca elatior L., *Kentucky*, Pennsylvania, *West Virginia.*
Lolium perenne L., Washington.
Notholcus lanatus (L.) Nash, Connecticut, *Massachusetts*, Tennessee.
Scolochloa festucacea (Willd.) Link, Saskatchewan.

315. **Dicaeoma Cynodontis.**
Capriola dactylon (L.) Kuntze, New Mexico.

316. **Dicaeoma Fraxini.**
Fraxinus americana L., Connecticut.
Fraxinus pennsylvanica Marsh., Connecticut, Florida, Mississippi.
Spartina alterniflora glabra (Muhl.) Fernald, North Carolina.
Spartina gracilis Trin., North Dakota.
Spartina Michauxiana Hitchc., Connecticut, *Minnesota, New Hampshire, New York.*

317. **Dicaeoma Distichlidis.**
Spartina pectinata Bosc, *Montana.*

318. **Dicaeoma Cephalanthi.**
Cephalanthus occidentalis L., Connecticut.
Spartina Michauxiana Hitchc., *New York.*

320. **Dicaeoma Jamesianum.**
Asclepias galioides H.B.K., Arizona, Colorado.

323. **Dicaeoma Windsoriae.**
Tridens flavus (L.) Hitchc., *Ohio.*

324. **Dicaeoma Eatoniae.**
Ranunculus abortivus L., Connecticut, Mississippi.

325. **Dicaeoma Koeleriae.**
Mahonia Aquifolium (Pursh) Nutt., South Dakota, Washington.
Koeleria cristata (L.) Pers., South Dakota.

326. **Dicaeoma Liatridis.**
Lacinaria punctata (Hook.) Kuntze, Wyoming.
Agrostis hyemalis (Walt.) B.S.P., Colorado.

327. **Dicaeoma epiphyllum.**
Catabrosa aquatica (L.) Beauv., Wyoming.
Deschampsia caespitosa Beauv., *California.*
Poa alpina L., Montana, Wyoming.
Poa compressa L., Pennsylvania, Washington.
Poa palustris L., Idaho, Montana.
Poa pratensis L., *Illinois,* Tennessee, *Wyoming;* Alberta, Manitoba.
Poa reflexa Vasey & Scribn., Idaho.

328. **Dicaeoma abundans.**
Symphoricarpos albus (L.) Blake, South Dakota.
Symphoricarpos oreophilus A. Gray, California, *Nevada.*
Festuca confinis Vasey, Nevada.

330. **Dicaeoma Pattersonianum.**
Agropyron spicatum (Pursh) Scribn. & Smith, Utah.
Sitanion jubatum J. G. Smith, California.

Dicaeoma montanense.
Agropyron caninum (L.) Beauv., Alberta.
Agropyron Smithii Rydb., Alberta.
Agropyron tenerum Vasey, Alberta.
Elymus canadensis L., Alberta.
Elymus virginicus L., West Virginia.

331. **Dicaeoma Asperifolii.**
Secale cereale L., Connecticut, North Dakota, Pennsylvania.

332. **Dicaeoma apocryptum.**
Hydrophyllum albifrons A. Heller, Washington.
Hydrophyllum Watsoni (A. Gray) Rydb., California.
Phacelia heterophylla Pursh, Wyoming.
Phacelia leucophylla Torr., *Wyoming.*
Agropyron tenerum Vasey, Utah.
Sitanion Hystrix (Nutt.) J. G. Smith, *California.*

333. **Dicaeoma Clematidis.**
Actaea rubra (Ait.) Willd., Minnesota.
Anemone cylindrica A. Gray, Alberta, Saskatchewan.
Aquilegia flavescens S. Wats., Utah, *Wyoming.*
Halerpestes Cymbalaria (Pursh) Greene, Alaska, Nevada; Alberta, Saskatchewan.
Thalictrum dioicum L., *South Dakota.*
Thalictrum sparsiflorum Turcz., California.
Agropyron caninum (L.) Beauv., *Colorado,* Utah.
Agropyron dasystachyum (Hook.) Scribn., Alberta.
Agropyron repens (L.) Beauv., Connecticut, *Illinois,* Pennsylvania.
Agropyron Smithii Rydb., Indiana; Alberta.
Agropyron tenerum Vasey, California; Alberta.
Bromus ciliatus L., Saskatchewan.
Bromus madritensis L., California.
Bromus marginatus Nees, Texas, Washington.

Bromus polyanthus Scribn., Wyoming.
Bromus Richardsonii Link, Montana, Utah.
Bromus tectorum L., California.
Elymus condensatus Presl, Idaho, Utah.
Elymus triticoides Buckl., Idaho.
Elymus vancouverensis Vasey, Washington.
Puccinellia Nuttalliana (Schultes) Hitchc., Alberta.
Sitanion Hystrix (Nutt.) J. G. Smith, Arizona.
Sitanion jubatum J. G. Smith, Utah.
Triticum aestivum L., Idaho, Mississippi, *Wyoming;* Saskatchewan; Coahuila, Guanajuato, Puebla.

337. **Dicaeoma Impatientis.**
Impatiens biflora Walt., Connecticut, Mississippi, Missouri, Washington.
Impatiens pallida Nutt., Minnesota, Tennessee.
Elymus canadensis L., Connecticut, Texas.
Elymus striatus Willd., *Tennessee.*
Elymus virginicus L., *Kentucky,* Texas, West Virginia.

338. **Dicaeoma glumarum.**
Agropyron cristatum Beauv., Washington.
Elymus glaucus Buckl., *Wyoming.*
Hordeum nodosum L., California, Washington.
Sitanion jubatum J. G. Smith, California.

339. **Dicaeoma anomalum.**
Hordeum vulgare L., Washington.

341. **Dicaeoma ignavum.**
Bambos vulgaris Schrad., Santo Domingo.
Dicaeoma obtectum.
Bidens frondosa L., Indiana.
Scirpus occidentalis (S. Wats.) Chase, Idaho.
Scirpus validus Vahl, California, *North Dakota.*

342. **Dicaeoma McClatchieanum.**
Scirpus microcarpus Presl, Idaho.

343. **Dicaeoma angustatum.**
Lycopus uniflorus Michx., Pennsylvania.
Scirpus cyperinus (L.) Kunth, Connecticut, *New Hampshire.*
Scirpus georgianus Harper, Connecticut.
Scirpus microcarpus Presl, California.

344. **Dicaeoma Eriophori.**
Senecio aureus L., Connecticut.
Eriophorum viridicarinatum (Engelm.) Fernald, Connecticut; British Columbia.
Dicaeoma canaliculatum.
Ambrosia trifida L., Connecticut.
Xanthium sp., Nebraska.
Cyperus esculentus L., Arizona, *Kentucky, Missouri, Ohio.*
Cyperus rotundus L., Mississippi, Oklahoma.
Cyperus strigosus L., Connecticut, Massachusetts, Missouri, *North Carolina, Ohio.*

345. **Dicaeoma Cyperi.**
Cyperus Schweinitzii Torr., *North Dakota.*
Cyperus strigosus L., West Virginia.
Kyllinga brevifolia Rottb., Costa Rica.
Kyllinga odorata Vahl, Martinique.

347. **Dicaeoma antioquiense.**
Cyperus diffusus Vahl, Honduras; Costa Rica.
Dicaeoma Eleocharidis.
Eupatorium maculatum L., Wyoming.
Eupatorium perfoliatum L., Connecticut, Massachusetts.
Eupatorium purpureum L., Connecticut, Massachusetts.
Eupatorium serotinum Michx., North Carolina.
Eleocharis obtusa (Willd.) Schultes, Connecticut, *Georgia*, *Mississippi*, *Missouri*, *New York*, *North Carolina.*
Eleocharis ovata (Roth) R. & S., North Carolina.

349. **Dicaeoma Scleriae.**
Scleria pterota Presl, St. Thomas.

350. **Dicaeoma Fimbristylidis.**
Fimbristylis diphylla (Retz.) Vahl, Panama.

351. **Dicaeoma Dichromenae.**
Dichromena radicans Cham. & Schlecht., Panama.
Dicaeoma angustatoides.
Rynchospora corniculata (Lam.) A. Gray, *Missouri.*
Rynchospora cyperoides (Sw.) Mart., Martinique.

352. **Dicaeoma consobrinum.**
Rynchospora corymbosa (L.) Britton, Porto Rico.

353. **Dicaeoma atrofuscum.**
Carex Douglasii Boott, Idaho.

354. **Dicaeoma Lysimachiae.**
Naumbergia thyrsiflora (L.) Duby, Manitoba.

355. **Dicaeoma Grossulariae.**
Grossularia Cynosbati (L.) Mill., Connecticut, Massachusetts.
Grossularia hirtella (Michx.) Spach, Idaho.
Grossularia inermis (Rydb.) Cov. & Britt., Montana.
Grossularia missouriensis (Nutt.) Cov. & Britt., *North Dakota.*
Grossularia setosa (Lindl.) Cov. & Britt., Alberta.
Ribes americanum Mill., Indiana, *North Dakota*, Wyoming.
Ribes bracteosum Dougl., Washington.
Ribes glandulosum Weber, Tennessee.
Ribes hudsonianum Richards., Wyoming.
Ribes lacustre (Pers.) Poir., Montana.
Ribes petiolare Dougl., Alaska, Washington.
Carex blanda Dewey, Oklahoma.
Carex castanea Wahl., *New York*, *Vermont.*
Carex crinita Lam., Connecticut, *New Hampshire.*
Carex gynandra Schw., *Massachusetts.*
Carex lanuginosa Michx., *North Dakota;* Alberta.
Carex nebraskensis Dewey, Utah, Washington.
Carex obnupta L. H. Bailey, *California.*
Carex sitchensis Prescott, Idaho, Washington.
Carex sparganioides Muhl., *Iowa.*
Carex stipata Muhl., *North Dakota.*
Carex tetanica Schkuhr, Ontario.
Carex trichocarpa Muhl., North Dakota.

358. **Dicaeoma Urticae.**

Urtica holosericea Nutt., California.
Urtica Lyallii S. Wats., Washington.
Carex amplifolia Boott, Idaho.
Carex Emoryi Dewey, Texas.
Carex nebraskensis Dewey, *California*, Idaho, Washington.
Carex obnupta L. H. Bailey, California.
Carex stricta Lam., *Iowa*.

360. **Dicaeoma minutissimum.**

Decodon verticillatus (L.) Ell., Connecticut.

Dicaeoma Dracunculi.

Artemisia biennis Willd., Alberta.
Artemisia camporum Rydb., Alberta.
Artemisia frigida Willd., Alberta.
Carex filifolia Nutt., *Colorado*.
Carex Geyeri Boott, California, Montana.
Carex heliophila Mackenzie, Wyoming.
Carex obtusata Lilj., Montana, *South Dakota*.
Carex praegracilis W. Boott, *California*, *Montana*, New Mexico.
Carex Rossii Boott, Washington, Wyoming.

362. **Dicaeoma Asterum.**

Aster frondeus (A. Gray) Greene, *Wyoming*.
Aster puniceus L., Washington.
Aster sp., Arkansas, Maine.
Erigeron philadelphicus L., Mississippi.
Erigeron pulchellus Michx., Arkansas.
Solidago canadensis L., Connecticut, Pennsylvania; *Ontario*.
Solidago juncea Ait., Connecticut, Indiana.
Solidago rigida L., South Dakota.
Solidago rugosa Mill., Connecticut.
Solidago sempervirens L., Connecticut.
Solidago serotina Ait., *Wyoming*.
Carex aenea Fernald, Montana.
Carex angustior Mackenzie, Idaho.
Carex athrostachya Olney, California.
Carex cephalantha (L. H. Bailey) Bickn., *New York*.
Carex diandra Schrank, New York.
Carex festivella Mackenzie, Idaho, Montana.
Carex muskingumensis Schw., Indiana.
Carex normalis Mackenzie, Nebraska.
Carex Rossii Boott, Montana.
Carex sparganioides Muhl., *North Dakota*.
Carex stipata Muhl., Colorado, Idaho.
Carex subfusca W. Boott, California.
Carex vulpinoidea Michx., Connecticut.
Dulichium arundinaceum (L.) Britton, Connecticut, *New Hampshire*.

365. **Dicaeoma Peckii.**

Kneiffia perennis (L.) Pennell, Wisconsin.
Meriolix serrulata (Nutt.) Walp., Wyoming.
Oenothera biennis L., Colorado, Mississippi, *South Dakota*.
Carex Muhlenbergii Schkuhr, Connecticut, West Virginia.

366. **Dicaeoma hieraciatum.**

Crepis runcinata (James) T. & G., North Dakota.

Lactuca sativa L., Manitoba.
Carex praegracilis W. Boott, Nevada.
Carex sp., *North Dakota, Oregon, Wyoming.*

368. **Dicaeoma Sambuci.**
Sambucus canadensis L., Mississippi.
Carex lupuliformis Sartwell, Indiana.
Carex lurida Wahl., *Arkansas*, Connecticut, Georgia.

369. **Dicaeoma Trientalis.**
Carex sp., *Missouri.*

370. **Dicaeoma obscurum.**
Juncoides comosum (E. Meyer) Sheldon, California, Washington.

371. **Dicaeoma Veratri.**
Epilobium alpinum L., Wyoming.
Epilobium anagallidifolium Lam., Alaska.
Epilobium sp., *Colorado.*

372. **Dicaeoma atropunctum.**
Anticlea chlorantha (Richards.) Rydb., Ontario.

374. **Dicaeoma Porri.**
Allium Schoenoprasum L., Washington.

375. **Dicaeoma granulisporum.**
Allium cernuum Roth, *South Dakota.*

376. **Dicaeoma Asparagi.**
Allium Cepa L., Wisconsin.
Asparagus officinalis L., Arizona, *Illinois*, Mississippi, Pennsylvania, Washington, *Wyoming.*

377. **Dicaeoma Smilacis.**
Smilax Bona-nox L., Indiana.
Smilax glauca Walt., *Missouri, West Virginia.*
Smilax havanensis Jacq., Florida.
Smilax rotundifolia L., New York.
Smilax sp., Pennsylvania.

Dicaeoma Aletridis.
Aletris farinosa L., Indiana, Wisconsin.

379. **Dicaeoma Iridis.**
Iris missouriensis Nutt., New Mexico.
Iris versicolor L., *New Hampshire.*

380. **Dicaeoma Cannae.**
Canna coccinea Ait., Honduras.

381. **Dicaeoma Polygoni-amphibii.**
Geranium maculatum L., Mississippi.
Bilderdykia Convolvulus (L.) Dumort., Connecticut, *Kentucky, North Dakota*, Tennessee.
Bilderdykia scandens (L.) Greene, Mississippi.
Persicaria coccinea (Muhl.) Greene, Alberta.
Persicaria Hartwrightii (A. Gray) Greene, Indiana.
Persicaria hydropiperoides (Michx.) Small, *Kentucky, Missouri.*
Persicaria incarnata (Ell.) Small, *Missouri.*
Persicaria lapathifolia (L.) S. F. Gray, *California, Ohio.*

Persicaria Muhlenbergii (Meissn.) Small, *Missouri.*
Persicaria pennsylvanica (L.) Small, North Carolina.
Persicaria Persicaria (L.) Small, Delaware, Georgia, Mississippi.
Persicaria punctata (Ell.) Small, Mississippi, *Oklahoma*, Tennessee.
Persicaria setacea (Baldw.) Small, *Alabama.*
Tovara virginiana (L.) Raf., Indiana.

382. **Dicaeoma Polygoni-vivipari.**
Bistorta bistortoides (Pursh) Small, Utah.

385. **Dicaeoma Polygoni-alpini.**
Aconogonum phytolaccaefolium (Meissn.) Small, *California.*
Dicaeoma Acetosae.
Rumex hastatulus Baldw., Alabama.

386. **Dicaeoma Guillemineae.**
Brayulinea densa (Willd.) Small, Arizona.

388. **Dicaeoma Rivinae.**
Rivina humilis L., Texas.

389. **Dicaeoma tardissimum.**
Arenaria Fendleri A. Gray, *Colorado.*
Dicaeoma Calthae.
Caltha palustris L., *North Dakota.*

390. **Dicaeoma areolatum.**
Caltha biflora DC., Alaska.

391. **Dicaeoma Oxalidis.**
Ionoxalis Martiniana (Zucc.) Small, Florida.

392. **Dicaeoma Nolitangeris.**
Impatiens biflora Walt., Georgia, *Massachusetts.*
Dicaeoma Violae.
Viola blanda Willd., Connecticut, Pennsylvania.
Viola canadensis L., British Columbia.
Viola eriocarpa Schw., Arkansas, Mississippi, Pennsylvania.
Viola fimbriatula J. E. Smith, Connecticut.
Viola incognita Forbesii Brainerd, Pennsylvania.
Viola nephrophylla Greene, Alberta.
Viola papilionacea Pursh, North Carolina.
Viola primulifolia L., Pennsylvania.
Viola septentrionalis Greene, *New York.*

394. **Dicaeoma Epilobii-tetragoni.**
Boisduvalia densiflora (Lindl.) S. Wats., Washington.
Epilobium minutum Lindl., California.
Gayophytum racemosum T. & G., *Wyoming.*
Gayophytum ramosissimum T. & G., Washington.
Oenothera strigosa (Rydb.) Mackenzie & Bush, Washington.
Sphaerostigma alyssoides (H. & A.) Walp., California.

396. **Dicaeoma Proserpinacae.**
Proserpinaca palustris L., Connecticut, Indiana.
Dicaeoma Pimpinellae.
Osmorrhiza Claytoni (Michx.) Clarke, Massachusetts.
Osmorrhiza divaricata Nutt., Idaho.
Osmorrhiza intermedia (Rydb.) Blankinship, Alaska, *Montana, Utah, Wyoming.*
Osmorrhiza longistylis (Torr.) DC., Indiana, *North Dakota*, Pennsylvania.
Osmorrhiza nuda Torr., Idaho.

398. **Dicaeoma Cicutae.**
Cicuta maculata L., Maine.
Cicuta occidentalis Greene, Colorado, Utah.
Dicaeoma marylandicum.
Sanicula marylandica L., Colorado, Pennsylvania; Manitoba.

401. **Dicaeoma Convolvuli.**
Convolvulus arvensis L., Indiana.
Convolvulus sepium L., Connecticut, Mississippi, Pennsylvania.

402. **Dicaeoma Lithospermi.**
Evolvulus nummularius L., Salvador.

403. **Dicaeoma Cressae.**
Cressa depressa Goodding, California.

404. **Dicaeoma fumosum.**
Loeselia ciliata L., Salvador.
Loeselia glandulosa G. Don, Salvador.

405. **Dicaeoma Menthae.**
Clinopodium vulgare L., *Massachusetts.*
Hedeoma pulegioides (L.) Pers., Indiana.
Koellia flexuosa (Walt.) MacM., Connecticut, Indiana.
Koellia incana (L.) Kuntze, Connecticut.
Koellia virginiana (L.) MacM., Mississippi.
Mentha spicata L., California, Connecticut, Indiana.
Monarda didyma L., Indiana, *Massachusetts.*
Monarda fistulosa L., Connecticut, Mississippi; Manitoba.
Monarda mollis L., Alberta.
Monarda stricta Wooton, *Wyoming.*

407. **Dicaeoma Leonotidis.**
Leonotis nepetaefolia (L.) R. Br., St. Thomas; St. Croix.

408. **Dicaeoma Hyptidis.**
Hyptis capitata (L.) Jacq., Santo Domingo; St. Thomas.
Hyptis radiata Willd., Cuba.
Dicaeoma medellinense.
Hyptis polystachya H.B.K., Salvador.
Hyptis suaveolens (L.) Poir., Nicaragua.

415. **Dicaeoma Ruelliae.**
Blechum Brownei (Sw.) Juss., Salvador; St. Croix.
Justicia sp., Panama.
Ruellia ciliosa Pursh, *Kentucky.*
Ruellia strepens L., Mississippi.

417. **Dicaeoma punctatum.**
Galium concinnum T. & G., Mississippi.
Galium triflorum Michx., North Dakota.

418. **Dicaeoma troglodytes.**
Galium triflorum Michx., Wisconsin.

419. **Dicaeoma splendens.**
Hymenoclea Salsola T. & G., Sonora.

423. **Dicaeoma evadens.**
Baccharis halimifolia L., Florida, Virginia.

425. **Dicaeoma exornatum.**
Baccharis rhexioides H.B.K., Salvador.

427. **Dicaeoma Caleae.**
Calea zacatechichi Schlecht., Salvador.
Calea sp., Honduras.
Dicaeoma Helianthi-mollis.
Helianthus angustifolius L., *Mississippi, North Carolina.*
Helianthus annuus L., Arizona, Connecticut, Mississippi, Tennessee; Manitoba.
Helianthus debilis Nutt., *Florida.*
Helianthus divaricatus L., *Arkansas,* Connecticut, *Illinois, Missouri.*
Helianthus giganteus L., Connecticut.
Helianthus lenticularis Dougl., Arizona.
Helianthus microcephalus T. & G., *Georgia.*
Helianthus mollis Lam., *Missouri.*
Helianthus Nuttallii T. & G., *Wyoming.*
Helianthus scaberrimus Ell., Indiana, *Wisconsin.*
Helianthus strumosus L., Arkansas, *South Carolina.*
Helianthus subrhomboideus Rydb., *South Dakota.*
Helianthus tuberosus L., Delaware, Georgia.

432. **Dicaeoma Verbesinae.**
Verbesina occidentalis (L.) Walt., Kentucky.

435. **Dicaeoma Cnici.**
Cirsium lanceolatum (L.) Hill, Connecticut, Mississippi.
Dicaeoma Lapsanae.
Lapsana communis L., Washington.

436. **Dicaeoma Harknessii.**
Ptiloria pauciflora (Torr.) Raf., Wyoming.
Ptiloria tenuifolia (Torr.) Raf., California, Wyoming.

437. **Dicaeoma Orbicula.**
Nabalus racemosus (Michx.) DC., North Dakota.
Nabalus trifoliolatus Cass., Pennsylvania.

438. **Dicaeoma hemisphaericum.**
Lactuca pulchella (Pursh) DC., *California;* Alberta.

443. **Pucciniola Rickeriana.**
Rumex paucifolius Nutt., Utah.

447. **Pucciniola Argophyllae.**
Psoralidium floribundum (Nutt.) Rydb., Nebraska, South Dakota, Wyoming.
Psoralidium tenuiflorum (Pursh) Rydb., *Oklahoma, South Dakota.*
Pucciniola oblonga.
Trifolium procumbens L., Washington.

448. **Pucciniola nerviphila.**
Trifolium repens L., Montana, Washington.

450. **Pucciniola Hedysari-obscuri.**
Hedysarum americanum (Michx.) Britton, Alaska, South Dakota; Manitoba.
Hedysarum pabulare A Nelson, *Wyoming.*
Hedysarum sulphurescens Rydb., Wyoming.

452. **Pucciniola maculans.**
Cestrum nocturnum L., Salvador.

455. **Allodus Calochorti.**
Calochortus Nuttallii T. & G., *Wyoming.*

457. **Allodus gigantispora.**
Anemone cylindrica A. Gray, Alberta.

458. **Allodus Podophylli.**
Podophyllum peltatum L., Connecticut.

461. **Allodus Jussiaeae.**
Ludwigia alternifolia L., Maryland.
Ludwigia polycarpa Short & Peter, Wisconsin.

463. **Allodus Jonesii.**
Cogswellia foeniculacea (Nutt.) Coult. & Rose, Wyoming.
Leptotaenia multifida Nutt., Wyoming.
Musineon Hookeri (T. & G.) Nutt., Wyoming.

465. **Allodus Swertiae.**
Swertia scopulina Greene, Wyoming.

466. **Allodus crassipes.**
Ipomoea tiliacea (Willd.) Choisy, Costa Rica.
Ipomoea trifida (H.B.K.) G. Don, *Texas.*
Allodus megalospora.
Ipomoea murucoides R. & S., Guerrero.

467. **Allodus nocticolor.**
Ipomoea fistulosa Mart., Salvador.
Ipomoea intrapilosa Rose, *Oaxaca.*

468. **Allodus Giliae.**
Leptodactylon Nuttallii (A. Gray) Rydb., California.
Microsteris humilis Greene, *Nevada.*
Microsteris micrantha (Kellogg) Greene, *California.*
Phlox multiflora A. Nelson, Wyoming.
Phlox pilosa L., Iowa.
Phlox speciosa Pursh, California.

469. **Allodus Douglasii.**
Phlox depressa (E. Nelson) Rydb., *Colorado.*
Phlox Hoodii Richards., Saskatchewan.

472. **Allodus complicata.**
Penstemon procerus Dougl., *California.*

474. **Allodus tenuis.**
Eupatorium urticaefolium Reichenb., Connecticut, *Massachusetts.*

477. **Allodus subcircinata.**
Senecio integerrimus Nutt., *North Dakota.*

478. **Klebahnia Glycyrrhizae.**
Glycyrrhiza lepidota Nutt., Alberta.

479. **Klebahnia gemmata.**
Jacquemontia nodiflora (Desv.) G. Don, Santo Domingo.

481. **Klebahnia Montanoae.**
Montanoa hibiscifolia Benth., Costa Rica.
Klebahnia Bidentis.
Bidens squarrosa H.B.K., Salvador.

486. **Bullaria inflata.**
Stigmaphyllon lingulatum (Poir.) Small, Santo Domingo.

487. **Bullaria Gouaniae.**
Gouania polygama (Jacq.) Urban, Salvador; Santo Domingo.
Gouania sp., Honduras.

488. **Bullaria invaginata.**
Gouania polygama (Jacq.) Urban, Santo Domingo; St. Thomas; St. Croix.

491. **Bullaria Cynomarathri.**
Cynomarathrum Nuttallii (A. Gray) Coult. & Rose, Wyoming.

492. **Bullaria Vincae.**
Vinca major L., Ontario.

493. **Bullaria impedita.**
Salvia hyptoides Mart. & Gal., Salvador.
Salvia occidentalis Sw., Salvador; St. Thomas.

494. **Bullaria globosipes.**
Lycium halimifolium Mill., Ohio.

495. **Bullaria tumidipes.**
Lycium halimifolium Mill., *South Dakota.*

496. **Bullaria Arthuriana.**
Vernonia canescens H.B.K., Salvador.

497. **Bullaria Vernoniae.**
Vernonia Baldwinii Torr., Texas.

498. **Bullaria inaequata.**
Vernonia patens H.B.K., Salvador.

499. **Bullaria idonea.**
Eremosis trifloseulosa (H.B.K.) Gleason, Salvador.
Bullaria praealta.
Eremosis trifloseulosa (H.B.K.) Gleason, Salvador.

500. **Bullaria Conoclinii.**
Ageratum conyzoides L., North Carolina.
Ageratum sp., Georgia.
Conoclinium coelestinum (L.) DC., *Louisiana.*
Eupatorium collinum DC., Morelos.

503. **Bullaria Kuhniae.**
Kuhnia eupatorioides L., Alabama.

508. **Bullaria Absinthii.**
Artemisia dracunculoides Pursh, Wyoming.

509. **Bullaria Cirsii.**
Cirsium acaulescens (A. Gray) K. Schumann, *Wyoming.*
Cirsium Flodmannii (Rydb.) Arth., *Montana.*
Cirsium foliosum (Hook.) DC., Wyoming.
Cirsium palousense Piper, Washington.
Cirsium undulatum (Nutt.) Spreng., Washington, *Wyoming.*

511. **Bullaria suaveolens.**
Cirsium arvense (L.) Scop., Ohio, Washington.
Bullaria Cyani.
Centaurea Cyanus L., Connecticut, Indiana, Michigan, Washington.

512. **Bullaria Bardanae.**
Arctium minus Schlecht., Connecticut, *Kentucky*, Maine, *Ohio.*

513. **Bullaria Hieracii.**
Agoseris aurantiaca (Hook.) Greene, *Wyoming.*
Hieracium albiflorum Hook., Wyoming.
Hieracium canadense Michx., *South Dakota.*
Hieracium columbianum Rydb., *Wyoming.*
Hieracium gracile Hook., Wyoming.
Leontodon Taraxacum L., Connecticut, Massachusetts, New Hampshire, Rhode Island, Vermont.
Sitilias caroliniana (Walt.) Raf., Georgia.

516. **Teleutospora jamaicensis.**
Bauhinia Pauletia Pers., Salvador.

519. **Teleutospora Rudbeckiae.**
Rudbeckia laciniata L., Maryland; Manitoba.

525. **Micropuccinia asarina.**
Asarum caudatum Lindl., British Columbia.

526. **Micropuccinia Arenariae.**
Moehringia lateriflora (L.) Fenzl, Alaska.

528. **Micropuccinia Anemones-virginianae.**
Anemone cylindrica A. Gray, Connecticut.

531. **Micropuccinia Drabae.**
Draba incerta Payson, Wyoming.

532. **Micropuccinia Holboellii.**
Arabis Holboellii Hornem., Alaska.

533. **Micropuccinia Cruciferarum.**
Cardamine cordifolia A. Gray, Utah.

Micropuccinia aberrans.
Smelowskia americana Rydb., Washington.

535. **Micropuccinia pallido-maculata.**
Micranthes arguta (D. Don) Small, Washington, Wyoming.

Micropuccinia Heucherae.
Mitella diphylla L., Connecticut.
Tiarella cordifolia L., Connecticut, New Hampshire.

536. **Micropuccinia curtipes.**
Micranthes virginiensis (Michx.) Small, Connecticut.
Saxifraga rivularis L., Wyoming.

538. **Micropuccinia Ribis.**
Ribes triste Pall., Washington.

539. **Micropuccinia Parkerae.**
Ribes lacustre (Pers.) Poir., Alaska.

541. **Micropuccinia Arechavaletae.**
Cardiospermum Halicacabum L., Salvador; Porto Rico.
Cardiospermum microcarpum H.B.K., Santo Domingo.
Serjania racemosa Schum., Salvador.

542. **Micropuccinia Malvacearum.**
Malvastrum corchorifolium (Desv.) Britton, Santo Domingo.
Malvastrum coromandelianum (L.) Garcke, Santo Domingo.

543. **Micropuccinia Sherardiana.**
Sphaeralcea coccinea (Nutt.) Rydb., Utah.

544. **Micropuccinia heterospora.**
Abutilon indicum (L.) Sweet, Porto Rico.
Malvaviscus arboreus Cav., Honduras; Salvador.
Sida cordifolia L., Porto Rico.
Sida spinosa L., Santo Domingo.
Sida urens L., Santo Domingo.
Wissadula amplissima (L.) R. E. Fries, Porto Rico.

545. **Micropuccinia lobata.**
Althaea rosea (L.) Cav., Arizona.

548. **Micropuccinia Circaeae.**
Circaea alpina L., Washington.

549. **Micropuccinia gigantea.**
Chamaenerion spicatum (Lam.) S. F. Gray, Washington; Manitoba.

552. **Micropuccinia Ligustici.**
Ligusticum filicinum S. Wats., *Wyoming.*

556. **Micropuccinia Dichondrae.**
Dichondra carolinensis Michx., Texas.

558. **Micropuccinia Urbaniana.**
Valerianodes jamaicensis (L.) Kuntze, Santo Domingo; St. Croix.

559. **Micropuccinia Lantanae.**
Lantana Camara L., St. Croix.
Lantana trifolia L., Costa Rica.
Priva lappulacea (L.) Pers., Santo Domingo.

562. **Micropuccinia Physalidis.**
Physalis heterophylla Nees, Ontario.

564. **Micropuccinia Clintonii.**
Elephantella groenlandica (Retz.) Rydb., Washington.
Pedicularis racemosa Dougl., Wyoming.

568. **Micropuccinia lateritia.**
Borreria laevis (Lam.) Griseb., Costa Rica.
Spermacoce glabra Michx., *Illinois.*
Spermacoce tenuior (L.) Lam., Salvador.

570. **Micropuccinia Symphoricarpi.**
Symphoricarpos albus (L.) Blake, Alaska.
Micropuccinia Adoxae.
Adoxa moschatellina L., Wyoming.

571. **Micropuccinia Xanthii.**
Ambrosia trifida L., *North Dakota.*
Xanthium chinense Mill., *Ohio, Texas.*
Xanthium inflexum Mackenzie & Bush, Oklahoma.
Xanthium italicum Mor., *Missouri.*
Xanthium pennsylvanicum Wallr., *Illinois, Louisiana.*

575. **Micropuccinia Asteris.**
Aster azureus Lindl., Iowa.
Aster multiflorus Ait., *North Dakota.*
Aster salicifolius Lam., *Kentucky, Ohio.*

576. **Micropuccinia Grindeliae.**
Chrysothamnus lanceolatus Nutt., Wyoming.
Isocoma vernonioides Nutt., *California.*

581. **Micropuccinia Melampodii.**
Synedrella nodiflora (L.) Gaertn., St. Croix; Costa Rica; Salvador.
Tridax procumbens L., Panama.

582. **Micropuccinia Millefolii.**
Achillea Millefolium L., Washington, *Wyoming.*

584. **Micropuccinia Emiliae.**
Calendula officinalis L., Kansas, Missouri, Texas.
Micropuccinia recedens.
Senecio aureus L., Connecticut.

585. **Micropuccinia Fraseri.**
Hieracium scabrum Michx., Nebraska, *New York.*

591. **Puccinia Heliconiae.**
Bihai borinquena Griggs, Santo Domingo.

594. **Puccinia Antirrhini.**
Antirrhinum majus L., *Kansas*, Washington, Wyoming.

597. **Puccinia turgidipes.**
Viguiera deltoidea Parishii (Greene) Vasey & Rose, California.

599. **Puccinia Noccae.**
Nocca rigida Cav., Salvador.
Puccinia Parthenii.
Parthenium Hysterophorus L., Nuevo Leon.

608. **Uredo rubescens.**
Dorstenia Contrajerva L., Costa Rica.

609. **Uredo Coccolobae.**
Coccolobis Uvifera (L.) Jacq., Santo Domingo.
Uredo Cyathulae.
Cyathula achyranthoides (H.B.K.) Moq., Costa Rica.

614. **Uredo Cupheae.**
Parsonsia Parsonsia (L.) Britton, Santo Domingo.

615. **Uredo Sapotae.**
Sapota Achras Mill., Santo Domingo.

617. **Uredo Hameliae.**
Hamelia erecta Jacq., Santo Domingo.

618. **Uredo Garcilassae.**
Garcilassa rivularis Poepp. & Endl., Costa Rica.

634. **Aecidium Tournefortiae.**
Tournefortia hirsutissima L., Santo Domingo.

New York Botanical Garden Library
3 5185 00275 8850