

OHIO FUNGI. FASCICLE II.

(Nos. 17-42, issued Feb. 22, 1902.)

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The following species constitute Fascicle II :

17. *Aecidium peckii* DeToni, on *Onagra biennis* (L.) Scop.
18. *Gloeosporium equiseti* E. & E., on *Equisetum robustum* R. Br.
19. *Gymnoconia interstitialis* (Schlecht.) Lagh., on *Rubus nigrobaccus* Bailey.
20. *Gymnoconia interstitialis* (Schlecht.) Lagh. Supplement to No. 19.
21. *Gymnosporangium clavipes* Cke. & Pk., on *Crataegus crus-galli* L.
22. *Gymnosporangium macropus* Link, on *Malus coronaria* (L.) Mill.
23. *Melampsora populina* (Jacq.) Lév., on *Populus deltoides* Marsh.
24. *Piggotia fraxiui* B. & C., on *Fraxinus pennsylvanica* Marsh.
25. *Polystictus molliusculus* Berk., on rotten Beech log.
26. *Puccinia angustata* Peck, on *Scirpus cyperinus* (L.) Kunth.
27. *Puccinia asparagi* DC., on *Asparagus officinalis* L.
28. *Puccinia caricinia* DC., on *Carex trichocarpa* Muhl.
29. *Puccinia circaeae* Pers., on *Circaea lutetiana* L.
30. *Puccinia helianthi* Schw., on *Helianthus tuberosus* L.
31. *Puccinia malvacearum* Bertero, on *Althaea rosea* Cav.
32. *Puccinia xanthii* Schw., on *Xanthium canadense* Mill.
33. *Stereum versicolor* (Sw.) Fr., on rotten Beech log.
34. *Urocystis occulta* (Wallr.) Rabh., on cultivated Rye, *Secale cereale* L.
35. *Uromyces caryophyllinus* (Schrank) Schroet., on *Dianthus caryophyllus* L.
36. *Uromyces euphorbiae* Cooke & Peck., on *Euphorbia dentata* Michx.
37. *Uromyces hedysari-paniculati* (Schw.) Farl., on *Meibomia viridiflora* (L.) Kuntze.
38. *Uromyces junci* (Desm.) Lév., on *Juncus effusus* L.
39. *Uromyces lespedezae* (Schw.) Peck., on *Lespedeza hirta* (L.) Ell.
40. *Ustilago hordei* (Pers.) Kellerm. & Swing., on *Hordeum sativum* Jessen.
41. *Ustilago syntherismae* Schw., on *Panicum proliferum* Lam.
42. *Ustilago tritici* (Pers.) Jensen, on *Triticum sativum* Lam.

For the loan of literature, transcripts of some original descriptions, identifying species and verifying determinations, I am indebted to the mycologists, Messrs. Arthur, Ellis, Farlow, Holway, Lloyd, Morgan, Thaxter and Trelease. The eighteen species of Uredineae were submitted to the inspection of Dr. Arthur, but Dr. Thaxter identified the two species of *Roestelia*. I return thanks to all those who have generously rendered me assistance.

The following paragraphs exhibit the labels with data and copy of the original descriptions :

17. *Aecidium peckii* DeToni.

Aecidium oenotherae Peck.

On *Onagra biennis* (L.) Scop.

Columbus, Ohio. June 5, 1901.

Coll. W. A. Kellerman.

"*Aecidium oenotherae* n. sp. Spots orbicular, scarcely thickened, reddish purple, sometimes stained with yellow; peridia short, crowded, generally with a small, free central space; spores pale orange, subglobose, small, $\frac{1}{2000}$ ' in diameter." Chas. H. Peck, Report on the State Cabinet, State of New York, 23: 60. 1872.

18. *Gloeosporium equiseti* E. & E.

On *Equisetum robustum* R. Br.

Logan, Hocking Co., Ohio. Oct. 8, 1894.

Coll. W. A. Kellerman.

"*Gloeosporium equiseti* E. & E. Acervuli large (1 mm. in diameter), subconfluent, covered by the blackened cuticle, which soon whitens out, except around the margin; spores cylindrical, slightly curved, multinucleate, 25-35 x 3 mmm., expelled in pale amber-colored masses." Journal of Mycology, 4: 52.

19. *Gymnoconia interstitialis* (Schlt.) Lagh.

Caecoma interstitiale Schlecht.; *Aecidium nitens* Schw.

Uredospores only.

On *Rubus nigrobaccus* Bailey.

Columbus, Ohio. June 2, 1901.

Coll. W. A. Kellerman.

"*Caecoma* (Uredo) *interstitiale* n. sp. Folia, quae infestat hoc *Caecoma*, caeteris, haud affectis, remanent multo minora et minus evoluta. Maculas in superiori foliorum pagina in planta sicca conspicere nequeo. Acervi, in pagina inferiore in nervorum interstitiis positi, oblongi, lineares, confluentes, fere totum interstitium occupantes, prius parum elevati, convexiusculi, epidermide tecti, quae postea, rima longitudinali irregulariter rumpens, pulverem, in siccatis luteum, liberum reddit; epidermidis vero fragmenta ad latera undulatim resistunt. Sporidia irregularia, rotundata, effoeta pellucida, saepius lineis obscuris varie intricatis impleta, parum inter se cohaerentia." Schlechtendal, in Nees von Esenbeck, *Horae Physicae Berolinensis*, 96. 1820.

"*Aecidium nitens* Sz. A. simplex elongatum peridiis maximis flavis splendentibus; demum irregulariter ruptis, pulvere aurantio.

"In foliis, petiolis et ramis junioribus *Rubi strigosii* frequens. Plantas totius regionis ita investit perenne redux, ut tandem omnino destruat; aestate. Ad Uredines accedit; sed peridium distinctum habet. Peridia demum inter se conflunt." L. D. de Schweinitz, *Synopsis Fungorum Carolinae Superiotis* (excerpta), p. 43. No. 458. 1822. (Schrift, d. Nat. Gesellschaft zu Leipzig.)

"*Caecoma*, *Aecidium*, *luminatum*, L. v. S. Folia quae cum tota planta ab hoc *Aecidia* infestantur (semper quidem ejusdem anni) omnino degenerata." L. D. de Schweinitz, *Transactions of the American Philosophical Society, Philadelphia, New Series*, 4: 293. 1834.

20. Gymnoconia interstitialis (Schl.) Lagh.

Caeoma interstitialis Schlecht.; Aecidium nitens Schw.

Spermagonia only.

On *Rubus nigrobaccus* Bailey.

Columbus, Ohio. May 5, 1901.

Coll. W. A. Kellerman.

Supplement to No. 19.

21. Gymnosporangium clavipes Cke. & Pk.

Roestelia aurantiaca Peck.

On *Crataegus crus-galli* L.

Vinton, Gallia Co., Ohio. July 10, 1901.

Coll. W. A. Kellerman.

"Roestelia aurantiaca Peck.—Peridia deeply seated, cylindrical, fragile, soon lacerated, fugacious, white; spores subglobose, bright orange, about .001' in diameter, with a thick hyaline epispore." Chas. H. Peck, Report of the New York State Museum (Report of the Botanist), 25: 91. 1872.

22. Gymnosporangium macropus Link.

Aecidium pyratum Schw.

On *Malus coronaria* (L.) Mill.

Lakeside, Ottawa Co., Ohio. Sept. 10, 1901.

Coll. W. A. Kellerman.

"Caeoma, Aecidium, Pyratum, L. v. S.—C. maculis in pagina superiori orbiculatis, rubris in ambitu ochraceis, centro nigrescentibus. In aversa pagina apparent pseudoperidia creberrima, subconcentrica, parum tantum elevata margine eleganter multifido-fimbriato; fimbriis rectis, nullimodo revolutis, divergentibus, pallidis. Sporidiis fuscis." L. D. de Schweinitz, Transactions of the American Philosophical Society, Philadelphia, New Series, 4: 294. 1834.

23. Melampsora populina (Jacq.) Lev.

Lycoperdon populinum Jacquin; Uredo longi-capsula

DC.; Melampsora tremulae Tul.

I. Uredo only.

On *Populus deltoides* Marsh.

Columbus, Ohio. October 5, 1902.

Coll. W. A. Kellerman.

Jacquin gives, Collectanea Supplement., Pl. 9, Fig. 2, only the following: "Folium Populi balsamiferae in parte supina, quae obsidetur in numeris Lycoperdis minutissimis et parasiticis, folia pessumdantibus;" and Fig. 3, "Pars hujus folii ad lentem aucta."

"Uredo longi-capsula. Cette espèce nait sous l'épiderme, le perce et forme des taches distinctes, arrondies ou oblongues, bordées dans leur jeunesse par les débris de l'épiderme; la poussière est très-abundante, jaune comme dans l'uredo rouille, mais elle en diffère parce que ses capsules, au lieu d'être ovoïdes, sont très-elongées et cylindriques; leurs deux extrémités sont obtuses." DeCandolle, Flore Française, 2: 233. 1815.

24. *Piggotia fraxini* B. & C.

On *Fraxinus pennsylvanica* Marsh.
Lakeside, Ottawa Co., Ohio. Sept. 19, 1901.
Coll. W. A. Kellerman.

"*Piggotia fraxini* B. & C. Peritheciis hic illic caespites punctiformes congestis; sporis oblongis minutis.

"Hypophyllous. Perithecia collected two or three together into little rugged dot-like groups; spores minute oblong." M. J. Berkeley, *Grevillea*, 3: 7. September, 1874.

25. *Polystictus molliusculus* Berk.

On rotten Beech log.
Columbus, Ohio. Oct. 30, 1901.
Coll. W. A. Kellerman.

"*Polyporus (Anodermei) molliusculus*, n. sp.; imbricatus pileis effuso-reflexis sublobatis leviter zonatis albis; zonis strigis mollibus sparsis ornatis; contextu albo; poriis mediis pallidis.

"Imbricated thin 5 inches or more long, 3 inches broad, sometimes perfectly resupinate, more generally with the border broadly reflected and slightly lobed, finely silky or nearly smooth, with zones of soft strigae, which in the dried plant are perfectly innate. Substance white, thin, corky when dry.

"Pores 1-48 of an inch broad, at first entire with thick dissepiments, at length lacerated and elongated, wood colored." M. J. Berkeley, *London Journal of Botany*, 6: 320. 1847.

26. *Puccinia angustata* Peck.

On *Scirpus cyperinus* (L.) Kunth.
Sugar Grove, Fairfield Co., Ohio. October 12, 1901.
Coll. W. A. Kellerman.

"*P. angustata* Peck. Hypogenous; spots pallid or none; sori oblong or linear, sometimes regularly arranged at equal intervals in long parallel lines, narrow, surrounded by the ruptured epidermis, black; spores narrow, oblong-clavate or elongated, septate above the middle, strongly constricted, having the lower cell more narrow than the upper and cylindrical or slightly tapering downwards, .0018'-.0024' long, .0006' broad; peduncle colored, thick, very short." Chas. H. Peck, Report on the State Museum, State of New York, 25: 123. 1872.

27. *Puccinia asparagi* DC.

On *Asparagus officinalis* L., plants grown from seed sown in the spring of 1900.

Columbus, Ohio. April 10, 1901.
Coll. W. A. Kellerman.

"*Puccinia asparagi*. Elle est assez commune en automne sur les tiges les branches, et les feuilles de l'asparage officinale; elle forme des taches ovales ou plus souvent oblongues, brunes, convexes; l'épiderme se fend longitudinalement; les puccines sont insérées et fortement fixées sur un réceptacle dur et charnu; chacune d'elles est composé d'un pédicelle blanc qui soutient un péricarpe oblong, obtus, à 2 loges séparées par un étranglement très-prononcé." DeCandolle, *Flore Française*, 2: 595. 1805.

28. Puccinia caricina DC.On *Carex trichocarpa* Muhl.

Columbus, Ohio. October 12, 1901.

Coll. W. A. Kellerman.

“*Puccinia caricina*. Cette puccinie diffère de l'*uredo caricina*, comme la puccinie des graminées diffère de l'*uredo rubigo-vera*; elle forme, à la surface supérieure des feuilles de plusieurs espèces de carex, des pustules ovales, petites, nombreuses, souvent disposées en séries longitudinales; dans leur jeunesse elles soulèvent l'épiderme, puis le rompent et restent entourées de ses débris; leur couleur est brune à leur naissance, et devient noire à la fin de leur vie; les plantules qui les composent, vues au microscope, offrent un pédicelle blanc filiforme, et une capsule en forme de massue allongée, presque cylindrique, à deux loges séparées par une cloison et un petit étranglement; la supérieure est plus arrondie et un peu plus grosse que l'inférieure.” DeCandolle, Flore Française, 6: 60. 1815.

29. Puccinia circaeae Pers.On *Circaea lutetiana* L.

West Alexandria, Preble Co., Ohio. July 3, 1901.

Coll. W. A. Kellerman.

“*Circaeae*, cespitosa, globosa dilute badia,—clavulis ovato-acuminatis. (In fol. *Circ. lutet.*)” C. H. Persoon. Roemer's Neues Magazin, 1: 119. 1794.

30. Puccinia helianthi Schw.On *Helianthus tuberosus* L.

Teleutospores only.

New Plymouth, Vinton Co., Ohio. October 10, 1901.

Coll. W. A. Kellerman.

Supplement to No. 10.

31. Puccinia malvacearum Bertero.On *Althæa rosea* Cav.

Perry, Lake Co., Ohio. July 15, 1901.

Coll. F. J. Tyler.

“*Puccinia Malvacearum*. P. hypophylla, confertim sparsa; acervulis hemisphaericis initio epidermide persistente centro velatis, ambitu nudis rufis, subtus umbilicatis; sporidiis dense congestis, ovoideo-oblongis, levibus, fuscis, medio subconstrictis obtuse acuminatis longissime pedicellatis, pedicello hyalino. P. Malvacearum Bertero, Mss. Coll. n. 730.” Montaigne, in Gay, Historia fisica y politica de Chile, 8: 43. 1852.

32. *Puccinia xanthii* Schw.

On *Xanthium canadense* Mill.

Columbus, Ohio.

August 26, 1901.

Coll. F. J. Tyler and O. E. Jennings.

"*Puccinia Xanthii* Sz. P. macula tenui orbiculari pallida, subtus fusco-brunnea pallide marginata, sporidiis oblongis bilocularibus pedicellatis.

"In aversa pagina foliorum *Xanthii strumarii*, locis arenosis. Subtus primum pallidas vesiculas, cellularum folii aemulas, exhibet, quibus disruptis et epidermide orbatis, cohaerentem pustulam fuscam exhibent sporidia, sub lente lutea, pedicello longiore quam sporidia." L. D. de Schweinitz, *Synopsis Fungorum Carolinae Superioris* (excerpta), p. 47, No. 500. 1822. (Schrift. d. Nat. Gesellschaft zu Leipzig.)

33. *Stereum versicolor* (Sw.) Fr.

Thelephora versicolor Sw.

On rotten Beech log.

Columbus, Ohio.

May 10, 1901.

Coll. W. A. Kellerman.

"*Thelephora versicolor*, pileo sessile membranaceo hirto, fasciis discoloribus, subtus laevi albido.

"*Helvella versicolor*, acaulis, membranacea fasciis discoloribus, inferna laevis alba.

"Pilei saepe plures conferti, accreti, sessiles, basi plerumque explanati, superne reflexi quasi dimidiati semirotundati, planiusculi, membranacea, rigidi, margine integri subundulati rarius incisi vestiti *hirsuti* brevi adpressa subaurea nitente, *fasciis* concentrici numerosis approximatis angustissimus ferrugineis fusco-violaceis interstincta. Hymenium glaberrimum, pallide albidum." O. Swartz, *Flora Indiae Occidentalis*, 3: 1934. 1806.

34. *Urocystis occulta* (Wallr.) Rabh.

Erysibe occulta Wallr.

On cultivated Rye, *Secale cereale* L.

Columbus, Ohio.

June 1, 1901.

Coll. W. A. Kellerman.

"*Erysibe occulta* W., sporidiis effusis subrotundis, e centro opaco limbum pellucidum verrucosum, veluti ex aliis minoribus concatenatis ambeuntibus compositum circumducentibus olivaceis copiosissimis, vaginarum et glumarum faciem interaneam investientibus illasque demum longitudinaliter ruptas, tomenti velutini continui rimosi instar obducentibus.

"a. *Secales*, sporidiis effusis, strias vaginarum interanearum infarcentibus culmumque longitudinaliter scissum taeniatum hinc denigrantibus, hinc translucendo cinereum mentientibus." F. G. Wallroth, *Flora Cryptogamica Germaniae, Compendium Florae Germanicae, Sectio II*, 4: 212. 1833.

35. Uromyces caryophyllinus (Schk.) Schr.

Lycoperdon Caryophyllum Schrank.

On Dianthus caryophyllus L.

Columbus, Ohio. February 10, 1901.

Coll. W. A. Kellerman.

"Lycoperdon caryophyllum. Halbeyfoermige weisslichte Blasen, die nach der groessern Axe zerspringen, und einen Kaffeebraunen Saamen ausschuetten." Franz von Paula Schrank, Baierische Flora, 2 : 668. 1789.

36. Uromyces euphorbiae Cke. & Peck.

On Euphorbia dentata Michx.

Lakeside, Ottawa Co., Ohio. September 15, 1901.

Coll. W. A. Kellerman.

"Uromyces euphorbiae Cooke & Peck. Leaves generally stained with red or purple; sori amphigenous, subrotund, slightly convex, surrounded by the ruptured epidermis, ferruginous-brown or blackish-brown; spores subglobose, rough, often with a large nucleus, about .0008' in diameter; peduncle short, hyaline." Chas. H. Peck, Report on the State Museum, State of New York, 25 : 90. 1872.

37. Uromyces hedysari-paniculati (Schw.) Farl.Puccinia hedysari-paniculati Schw.; Phragmidium
hedysari Schw.

On Meibomia viridiflora (L.) Kuntze.

Vinton, Gallia Co., Ohio. October 11, 1901.

Coll. W. A. Kellerman.

"Puccinia hedysari paniculati Sz. P. punctiformis sparsa fusca, sporidiis ovata-globosis fuscis, pedicello longissimo filiformi pellucido.

"Frequens in aversa facie foliorum Hedysari paniculati. Septum in sporidio non conspicio. Pedicellus filiformis, pellucidus." L. D. de Schweinitz, Synopsis Fungorum Carolinae Superioris (excerpta), p. 48, No. 503. 1822. (Schrift. d. Nat. Gesellschaft zu Leipzig.)

"Phragmidium hedysari, L. v. S. P. acervulis minutis sed crebris per totum folium sparsis, epidermide innatis. Sporidiis longe pedicellatis, pedicello articulado, pellucido, ceterum opacis, ovatis, obtusis, non cylindricis, obscure septatis, nec articulado-constrictis, fusco-nigris." L. D. de Schweinitz, Transactions of the American Philosophical Society, Philadelphia, 4 : 297. 1834.

38. *Uromyces junci* (Desm.) Lev.*Puccinia junci* Desm.

Teleutospores only.

On *Juncus effusus* L.

Junction City, Perry Co., Ohio. April 10, 1901.

Coll. W. A. Kellerman.

This fungus was issued by J. B. H. J. Desmazieres, *Plantes Cryptogames de France*, Fasc. II., No. 81, on the label of which no technical description is given, but the following statement is made: "Elle (i. e., *Puccinia junci*) a de grands rapports avec le *Puccinia graminis* auquel on pourrait la réunir comme une variété bien distincte. Les capsules sont, comme dans cette espèce, en forme de massue mais les pustules qu'elles forment par leur réunion ne sont pas lineaires."

39. *Uromyces lespedezae* (Schw.) Peck.*Puccinia lespedezae-procumbentis*, *Puccinia lespedezae-polystachyae* Schw.On *Lespedeza hirta* (L.) Ell.

Bowling Green, Wood Co., Ohio. September 2, 1901.

Coll. W. A. Kellerman.

"*Puccinia lespedezae procumbentis* Sz. P. minor subpunctiformis sparsa fuscescens prorumpens, sporidiis oblongis bilocularibus.

"Passim ad folia *Lespedezae procumbentis*. Epidermidem paginae inferioris folii in bullas elevat, post rupturam albas, pellucidas. Sporidii septum exacte in medio sporidio situm et pedicellus (albidus, longior) a sporidio distinctus est." L. D. de Schweinitz, *Synopsis Fungorum Carolinae Superioris* (excerpta), p. 47, No. 497. 1822. (Schrift. d. Nat. Gesellschaft zu Leipzig.)

"*Puccinia lespedezae polystachyae* Sz. P. minor punctiformis epidermide cincta nigra splendens, sporidiis oblongis utrinque attenuatis subbilocularibus.

"Frequens in pagina inferiore foliorum. Epidermide cincta. Sporidia magis elongata et in pedicellum attenuata, septo vix conspicuo, cujus umbra mox pone apicem sporidii, mox inferius apparet. Color sporidiorum sub lente luteus." L. D. de Schweinitz, *Synopsis Fungorum Carolinae Superioris* (excerpta), p. 47. No. 498. 1822. (Schrift. d. Nat. Gesellschaft zu Leipzig.)

40. *Ustilago hordei* (Pers.) Kell. & Swing.*Uredo hordei* Pers.On *Hordeum sativum* Jessen.

Oxford, Butler Co. Ohio. June 3, 1895.

Coll. W. A. Kellerman.

"*Uredo segetum*: pulvere copioso nigro in graminum spiculis s. glumis proveniente. (Disp. meth. fung., p. 56.)

"*Reticularia segetum*, fusco-nigricans graminum parasitica, intus filamentosa. (Bull. champ. 1, pag. 90. t. 472. f. 2.)

"*a. Uredo hordei*: pseudoperidio subelliptico ruguloso, pulvere latente." D. C. H. Persoon, *Synopsis Methodica Fungorum*, t. 224. 1801.

41. Ustilago syntherismae Schw.On *Panicum proliferum* Lam.

Columbus, Ohio. October 5, 1901.

Coll. F. J. Tyler and O. E. Jennings.

"*Ustilago* (Caeoma subgen. *Uredo*) *syntherismae*, L. v. S. C. in vaginis etiam junioribus sese ostendit ante evolutionem. Sporidiis cinereo-atro viridibus, laxissime effusis inquinantibus." L. D. de Schweinitz, Transactions of the American Philosophical Society, Philadelphia, 4: 290. 1834.

42. Ustilago tritici (Pers.) Jensen.*Uredo tritici* Persoon.On *Triticum sativum* Lam.

Columbus, Ohio. June 12, 1901.

Coll. W. A. Kellerman.

"*Uredo segetum*: pulvere copioso nigro in graminum spiculis s. glumis proveniente. (Disp. meth. fung., p. 56.)

"*Reticularia segetum*, fusco-nigricans graminum parasitica, intus filamentosa. (Bull. champ. r. pag. 90. t. 472. f. 2.)

"*b. Uredo tritici*: subeffusa." D. C. H. Persoon, Synopsis Methodica Fungorum, 1: 224. 1801.
