

# SMUTS AND RUSTS OF UTAH. III

A. O. GARRETT

## USTILAGINALES

### 4. THECAPHORA DEFORMANS Dur. & Mont.

North American Flora (7<sup>1</sup>: 42. 1906) lists collections from Utah on *Astragalus missouriensis* Nutt. and on *Homalobus tenellus* (Pursh) Britton (*Astragalus multiflorus* A. Gray).

Professor Marcus E. Jones collected specimens on *Astragalus Thompsonae* Watson in a canyon above Tropic, Garfield Co., May 28, 1894, at an altitude of 1950 m.

### 9. USTILAGO HYPODYTES (Schlecht.) Fries

In internodes of *Distichlis spicata* var. *stricta* (Torr.) Scribn.: 2272, Aug. 24, 1914, West Fourteenth South St., Salt Lake City.

In internodes of *Elymus condensatus* Presl.: Collected by Wyatt W. Jones near Murray, Salt Lake Co., Sept., 1918.

North American Flora (7<sup>1</sup>: 5. 1906) lists a collection in Utah on *Stipa* sp.

### 12. USTILAGO LORENTZIANA Thüm.

In inflorescence of *Sitanion hystrix* (Nutt.) J. G. Smith: 2285, June 16, 1915, near sand dunes between Garfield and Saltair, Salt Lake Co. The host was determined by Mrs. Agnes Chase. No smut has previously been reported on this host. The smut was sent to Dr. Clinton, who writes, under date of October 20, 1915, "I am not sure whether the fungus represents a new species or not. It is close to *Ustilago Lorentziana* and *U. bromivora*. I have placed it provisionally under *U. Lorentziana* (?), but am not quite satisfied with that disposition."

### 13. USTILAGO MACROSPORA Desmaz.

In leaves of *Elymus canadensis* L., Salt Lake City, May, 1915.

A collection from Utah on *Agropyron* sp. is recorded in N. A. Flora (7<sup>1</sup>: 241-258. 1906).



14. *USTILAGO STRIAEFORMIS* (Westend.) Niessl.

A collection of this species from Utah on *Phleum pratense* L. is listed in North American Flora 7<sup>1</sup>: 19. 1906.

## UREDINALES

2. *AECIDIUM TITHYMALI* Arthur, Bull. Torrey Club 45: 151.  
1918

This rust was called *Aecidium Euphorbia* Pers. in the first paper on the "Smuts and Rusts of Utah." It has now been decided that the true *Aecidium Euphorbiae* does not occur in America. From field observations made at Cimarron, Colorado, the latter part of July, 1918, the writer feels confident that *A. Tithymali* is the aecial stage of *Uromyces occidentalis*. This was the only aecium found in the locality. Wherever it occurred, the *Uromyces* (on *Lupinus Greenei* A. Nels. ?) was very abundant. There was not one center of infection, but several, and they were several hundred yards apart. Moreover, the *Aecidium Tithymali* was for the most part too old to make good specimens, while the *Uromyces* was in prime condition.

4. *PUCCINIA MONOICA* (Peck) Arth. I

*Aecidium monoicum* Peck.

Another collection was made in the summer of 1915 of the *Aecidium* on *Sophia* sp. (since determined as *S. leptostylis* Rydb.), referred to in previous papers of this series (*Mycologia* 2: 271. 1910, and *Mycologia* 6: 241. 1914) as No. 4 (*Aecidium monoicum*). The collection in the summer of 1915 was made in Big Cottonwood Canyon not far from the place where the original collection was made.

On *Schoenocrambe linifolia* (Nutt.) Greene (*Sisymbrium linifolium* Nutt.). Collected by Professor Marcus E. Jones, May 25, 1908, at White River, Uinta Co., alt. 1800 m. (No. 7787 Jones.)

7. *PUCCINIA ALTERNANS* Arth. III

On *Bromus* sp.: 2292a, July 12, 1915, near Silver Lake, Big Cottonwood Canyon, alt. about 2615 m. This was weathered



material, with an abundance of fresh aecia on the surrounding *Thalictrum* plants. The collections of aecia listed under the name of *Aecidium* sp. (No. 7 of this series of papers) belong to *Puccinia alternans*.

Dr. Arthur now considers *Puccinia alternans* to be a race of *Puccinia Agropyri* Ellis & Ev. (*Mycologia* 7: 73-75. 1915).

#### 9. GYMNOSPORANGIUM NELSONI. I

On *Peraphyllum ramosissimum* Nutt. Collected by Professor Marcus E. Jones (No. 6029), at Asays, Garfield Co., Sept. 11, 1894, alt. 2250 m.

#### 15. MELAMPSORELLA ELATINA (Albert & Schw.) Arth.

*Peridermium elatinum* Schw. & Kze.

On *Abies* sp. Collected by Professor Marcus E. Jones at Strawberry Valley, August, 1883.

This rust forms large witches' brooms on the alpine fir (*Abies lasiocarpa*).

#### 17. PHRAGMIDIUM IVESIAE Sydow, Ann. Myc. 1: 329. 1903 *Ph. affine* Syd.

On *Potentilla glomerata* A. Nelson: 2345: II, iii, July 24, 1917, Emigration Canyon, Salt Lake Co. Host determined by Dr. Rydberg. The host of the collection reported from the Hot Pots (No. 727) given in the original paper as *Potentilla glomerata* has been determined by Dr. Rydberg<sup>1</sup> as *Potentilla dichroa* Rydb.

#### 28. PUCCINIA BALSAMORRHIZAE Peck

Mr. Wyatt W. Jones, botanist of the American Smelter and Refining Company's Experiment Station, made a collection of rust in II and iii in Salt Lake Co., May 10, 1915, on *Balsamorhiza hirsuta* Nutt., which is tentatively referred to this species.

#### 34. PUCCINIA CINEREA Arthur. III

On *Puccinellia airoides* (Nutt.) Wats. & Coulter. Collected by Ellsworth Bethel, November 15, 1917, at Marysvale, Piute Co.

<sup>1</sup> Bull. Torrey Club, 37: 490. 1910.



## 38. PUCCINIA COMANDRAE Peck. III

On *Comandra pallida* DC. Collected by E. M. Hall, July 14, 1918, in Zion Canyon, Washington Co.

## 45. PUCCINIA DOUGLASII Ellis &amp; Ev.

On *Phlox* sp. Collected by Professor Marcus E. Jones (Jones 1695) at Gold Mountain, August 22, 1901.

## 48. PUCCINIA CYNOMARATHRI Holway, North American Uredineae 1: 94. 1913

This was listed in the first paper on the "Smuts and Rusts of Utah" as *Puccinia Ellisii* De Toni, but Professor Holway has described it as a distinct species in the publication cited above.

## 57. PUCCINIA HARKNESSII Vize

On *Stephanomeria* sp. A collection was made by Prof. Marcus E. Jones (No. 5241), May 16, 1894, at Springdale, Washington Co., alt. about 1200 m.

## 69. PUCCINIA JONESII Peck. I, III

On *Cogswellia lapidosa* (M. E. Jones) Rydb. (*Cymopterus lapidosus* Jones) I, collected by Professor Marcus E. Jones (Jones 7781), at Theodore, benches of the Uintas, Wasatch Co., May 12, 1908.

On *Cogswellia simplex* (S. Wats.) Rydb. (*C. platycarpa* (Torr.) Jones); *Lomatium platycarpum* (Torr.) Coulter & Rose. Collected by Professor Marcus E. Jones (Jones 1695), 1880. This collection is labeled "*Aecidium sublineatum* Pk. sp. nov." in Professor Jones' herbarium.

## 77. PUCCINIA MERTENSIAE Peck. III

On *Mertensia foliosa* A. Nels. Collected by Dr. J. F. Brenckle, May 7, 1918, at Red Butte, near Ft. Douglas, Salt Lake Co.

## 78. PUCCINIA MONARDELLAE Dudley &amp; Thompson. I, II

On *Madronella oblongifolia* Rydb.: 2347, August 24, 1917, Parley's Canyon, Wasatch Mts., Salt Lake Co. Collected by Garrett & Giddings.



## 81. PUCCINIA PIMPINELLAE (Str.) Mart. I, II

*P. Osmorrhizae* (Peck) Cooke & Peck.

On leaves of *Osmorrhiza occidentalis* Nutt.: 2257, I, May 22, 1915, Red Butte Canyon, Wasatch Mts. 2254, II, August 20, 1911, Abajo Mts., San Juan Co., alt. about 2000 m. Exsic. Fungi Utahenses 235.

## 77 and 98. PUCCINIA MONTANENSIS Ellis

On *Elymus glaucus* Buckley. 2302, III, Oct. 10, 1915, Red Butte Canyon, Salt Lake Co. Exsic. Fungi Utahenses 234. The host was in a region where it had been surrounded by *Hydrophyllum* plants which had borne an abundance of aecia earlier in the year.

The specimens recorded in the first paper of "Smuts and Rusts of Utah" as No. 98: *Puccinia* sp. should be referred to *Puccinia montanensis*. It was suggested in the notes accompanying No. 98 that probably these collections (which sometimes have been called *Puccinia agropyrina* Ellis & Ev.) were connected with the *Aecidium* on the various species of *Hydrophyllum*. To test the correctness of this prediction (made in 1910), the writer sent to Dr. Arthur (on May 23, 1915) a fresh collection of aecia on *Hydrophyllum capitatum*, and requested that a sowing be made on *Agropyron* and *Elymus*. Dr. Arthur's inoculations were successful, uredinia beginning to show on *Agropyron* June 7, followed by telia June 11.

## 99. PUCCINIA ATRO-FUSCA (D. &amp; T.) Holway

The rust designated under No. 99 of the "Smuts and Rusts of Utah" as *Puccinia* sp. should be referred to *Puccinia atro-fusca*.

Another collection was made at the same locality on August 24, 1917 (No. 2348). Both collections were determined by Dr. Kern.

## 105. PUCCINIA SUBNITENS Dietel

On *Chenopodium murale* L. I, Collected May 6, 1918, at St. George, Washington Co., by E. M. Hall.

On *Atriplex rosea* L. (*A. spatiosa* A. Nelson) I. Collected July, 1916, at Oasis, Millard Co., by M. R. Porter.



The type collection of *Aecidium Sarcobati* Peck (which according to Dr. Arthur's cultures is one of the aecial forms of *P. subnitens*) was made by Professor Marcus E. Jones, June 23, 1880, at Milford, Beaver Co. Another collection was made by him (No. 7809), June 26, 1906, at Burbank, Millard Co. (alt. 1800 m.). Professor Bethel claims that this aecidium goes to *Puccinia luxuriosa* Sydow.

107. PUCCINIA SUBSTERILIS Ellis & Ev.

On *Eriocoma cuspidata* Nutt. (*Oryzopsis hymenoides* (R. & S.) Ricker): 2332, Sept. 23, 1916, mouth of Red Butte Canyon, Salt Lake Co. This was formerly called *Uredo Eriocomae* Ellis. Altitude 1500 m. Exsic. Fungi Utahenses 240.

124. PUCCINIASTRUM MYRTILLI (Schum.) Arth.

On *Vaccinium* sp. Collected by Professor Marcus E. Jones, August, 1883, in Strawberry Valley, Wasatch Mts.

On *Vaccinium globulare* Rydb. Collected by Dr. Hedgcock in Uinta Mts.

129. UROMYCES PUNCTATUS Schröt.

*U. Astragali* (Opiz.) Schröt.

On *Astragalus argophyllus* Nutt.: 2297, July 22, 1915, Logan Canyon, Cache Co. (Host determined by Dr. Rydberg.)

131. UROMYCES INTRICATUS Cooke

*U. Eriogoni* Ellis & Hark.

On *Eriogonum ramossissimum* Eastw. Collected by Dr. P. A. Rydberg at Bluff, San Juan Co., August, 1911. Host determined by Dr. Rydberg.

132. UROMYCES PROEMINENS (DC.) Pass.

On *Euphorbia Greenei* Millsp.: 2402, Duchesne, Duchesne Co., July 30, 1918. Host determined by Dr. Rydberg.

136. UROMYCES JUNCII-EFFUSI Sydow

This was listed as *Uromyces Junci* (Desm.) Lev. in the first paper of the "Smuts and Rusts of Utah," and was issued in



Fungi Utahenses under that name. *Uromyces Junci-effusi* has 3 or 4 germ-pores in the uredospores, while *U. Junci* has only 2.

143. *UROMYCES ZYGADENI* Peck

This species is listed in North American Flora (7<sup>3</sup>: 241. 1912) as having been collected in Utah on *Zygadenus falcatus* Rydb.

The type of *Uromyces Zygadeni* was collected in City Creek Canyon, near Salt Lake City, by Professor Marcus E. Jones on *Zygadenus paniculatus*.

120. *PUCCINIA WYETHIAE* (Peck) Ellis & Ev.

A collection on *Wyethia arizonica* A. Gray was made by Professor Marcus E. Jones at Sink Valley, June 2, 1890.

123. *PUCCINIASTRUM PUSTULATUM* (Pers.) Dietel

On *Epilobium stramineum* Rydb.: 2363, July 27, 1918, Witbeck's Ranch, near Vernal, Uinta Co.

148. *COLEOSPORIUM RIBICOLA* (Cooke & Ellis) Arth.

On *Ribes aureum* Pursh. Collected by Bethel & Hunt near Monticello, San Juan Co., August 15, 1918. The first record for the State on this host.

On *Grossularia inermis* (Rydb.) Cov. & Britt. Collected by Bethel & Hunt near Monticello, San Juan Co., August 15, 1918, the first record for the State on this host.

150. *CRONARTIUM PYRIFORME* (Peck) Hedgc. & Long. II, III  
*C. Comandrae* Peck.

On *Comandra pallida* A. DC.: II. Collected by Professor Marcus E. Jones, August, 1883, at Salt Lake City. In Professor Jones' herbarium this collection is labeled "*Uredo Commandrae* Peck n. sp."—a name that evidently was never published. III, 2401a, July 26, 1918, near Vernal, Uinta Co., alt. about 1665 m.

The connection of *Cronartium Comandrae* with *Peridermium pyriforme* Peck was demonstrated by Hedgcock & Long.



152. *GYMNOSPORANGIUM GRACILENS* (Peck) Kern & Bethel. III  
*G. speciosum* Peck.

On *Juniperus utahensis* (Engelm.) Lemm.: 2360, Witbeck's Ranch, near Vernal, Uinta Co., July 27, 1918.

157. *PUCCINIA ACTINELLAE* (Webb) Syd. I

On *Actinella scaposa* Nutt. Collected by Professor Marcus E. Jones (No. 5290) at Cisco, Grand Co.

163. *PUCCINIA GLOBOSIPES* Peck

On *Lycium Andersoni* A. Gray: 2305, June 11, 1915, Hat Island, Great Salt Lake. Host determined by Dr. Rydberg.

On *Lycium Torreyi* A. Gray. Collected by E. M. Hall at North St. George, Washington Co., May 17, 1918.

170. *PUCCINIA PSEUDOCYMOPTERI* Holw.

Mentioned in N. A. Uredineae (1: 91. 1913) as having been collected in Utah on *Pseudocymopterus anisatus* C. & R.

174. *PUCCINIA TUMIDIPES* Peck

On *Lycium pallidum* Miers. Collected by Dr. P. A. Rydberg, August 26, 1911, Cottonwood Creek, one mile northeast of Bluff, San Juan Co.; and by E. M. Hall, November 9, 1916, at Big Plains, Washington Co.

176. *PUCCINIA VARIOLANS* Hark.

On *Tetradymia canescens* DC. Collected by Professor Marcus E. Jones July, 1886, at Rockford.

On *Tetradymia comosa* A. Gray. Collected by Professor Marcus E. Jones May 16, 1915, at Temple Wash.

182. *UROMYCES PSORALEAE* Peck

The type of this species was collected by Professor Marcus E. Jones on *Psoralea* sp., June 4, 1880, alt. 1,300 m. Although stated in the original description as having been collected at Salt Lake City, Professor Jones tells me that it was collected "toward Garfield."



Mr. Wyatt W. Jones made a collection of this species in the aecial stage in Weber County.

184\*. *AECIDIUM ALLENII* Clinton, Ann. Report N. Y. Museum  
24: 93. 1872<sup>2</sup>

On leaves of *Shepherdia canadensis* Nutt. (*Lepargyrea canadensis* (L.) Greene): 2319, August 21, 1916, Daniel's Canyon (above old millsite), Wasatch Co., alt. about 2,200 m. This is apparently the first record of this rust in the State. Exsic. Fungi Utahenses 226.

Mr. Bethel connects this *Aecidium* with a coronate *Puccinia* on *Elymus* and *Agropyron*.

185\*. *AECIDIUM BIFORME* Peck, Am. Nat. 9: 351. 1875

Collected in May, 1874, at St. George, Virgin Valley, Washington Co., by Dr. C. C. Parry. Bethel refers this to *Puccinia subnitens*.

186\*. *AECIDIUM LEPIDII* Tracy & Gall., Jour. Mycol. 4: 21. 1888

Collected by Tracy & Galloway, July, 1887, type, on *Lepidium montanum* Nutt. Bethel refers this to *Puccinia subnitens*.

187\*. *CRONARTIUM OCCIDENTALE* Hedg., Bethel & Hunt. I, II, III, Jour. Agr. Research 14: 413. 1918

On *Pinus edulis* Engelm.: F. P. 29419, I (*Peridermium occidentale* Hedg., Bethel & Hunt), McKee's Ranch, 15 miles northeast of Vernal, Uinta Co., July 28, 1918. This is the first record of the collection of the *Peridermium* in the State. Hunt and Bethel collected it at Monticello, San Juan County, on August 15, 1918.

On *Ribes aureum* Pursh. 2948, II, III, September 14, 1918, Santaquin, Utah Co., alt. about 1428 m. The first collection in Utah of the *Cronartium* was made at Santaquin, September 19, 1914, by Professor C. P. Taylor on this same host.

On *Ribes odoratum* Wendl. (*R. longiflorum* Nutt.) III. Collected by Professor E. M. Hall at Springdale, Washington Co., November 10, 1916.

<sup>2</sup> Numbers marked with the asterisk (\*) are those of species not included in either of the two preceding lists.



On *Grossularia inermis* (Rydb.) Cov. & Britt. (*Ribes inermis* Rydb.) II, III. Collected by Bethel & Hunt at Monticello, San Juan Co., August 15, 1918. This is the first collection on this host in the State, and the second in nature on this host.

188\*. GYMNOSPORANGIUM BETHELI Kern. I, III, Bull. Torrey Bot. Club 34: 459. 1907.

On leaves and sparingly on fruits of *Crataegus rivularis* Nutt.: 2293, July 22, 1915, Logan Canyon, Cache Co. Exsic. Fungi Utahensis 227. Also reported by Dr. O'Gara on the same host from Parley's Canyon, Salt Lake Co.

On *Juniperus scopulorum* Sarg. Collected by Professor Ellsworth Bethel, November 11, 1917, at Gilluly Station (Tucker P. O.), Utah Co. Even at the late date on which this collection was made, a few telial horns still persisted.

189. GYMNOSPORANGIUM JUVENESCENS Kern. III, Bull. N. Y. Bot. Garden 7: 448. 1911

On *Juniperus scopulorum* Sarg. Collected by Professor Ellsworth Bethel, November 17, 1917, in Bullion Canyon near Marysvale, Piute Co. This species forms large witches' brooms on the cedar trees. The leaves in the fasciations become slender and sharp-pointed like those of the young growth. The aecia are found on *Amelanchier*, but have not yet been reported from Utah.

190\*. GYMNOSPORANGIUM KERNIANUM Bethel. III, Mycologia 3: 157. 1911

On *Juniperus utahensis* (Engelm.) Lemm.: 2361, July 27, 1918, Witbeck's Ranch, near Vernal, Uinta Co. Also collected by Professor Ellsworth Bethel, November 17, 1917, on the same host, in Bullion Canyon (three miles from Marysvale), Piute Co. This collection consists of only the fasciations made by the rust. These fasciations can be distinguished from those of *G. juvenescens* by the fact that the scales are altered only by becoming smaller instead of reverting to the sharp-pointed form of the younger growth, as they do in *G. juvenescens*.



191\*. MELAMPSOROPSIS ARCTOSTAPHYLI (Dietel) Arthur. 11  
*Chrysomyxa Arctostaphyli* Dietel. Result. Sci. Congr. Bot.  
Vienne 338. 1906.

On *Arctostaphylos Uva-Ursae* (L.) Spreng. Collected by  
Professor Marcus E. Jones, August 2, 1894, at Fish Lake, Sevier  
Co., alt. about 3000 m.

This is a very rare rust, the other collections being two from  
Wisconsin, one from Colorado and one from Montana. The  
aecial connection is still to be discovered, and is to be looked for  
on the leaves and cones of the spruces.

192\*. PERIDERMIMUM COLORADENSE (Dietel) Arthur & Kern, Bull.  
Torrey Bot. Club 33: 426. 1906.

Dr. Hedgcock states (Phytopathology 3: 17. 1913) that many  
spruce trees diseased by this fungus were observed in the Manti  
National Forest. *Picea Engelmanni* is more often attacked than  
*Picea lasiocarpa*. Diseased trees can easily be told by the con-  
spicuous witches' brooms made by the fungus.

193\*. PUCCINIA ANOMALA Rost. Thüm. Flora 1877: 92. 1877  
*P. Hordei* Otth.

In his Uredinales of Oregon (page 231), Dr. Jackson states  
that specimens of this rust from Utah, on the leaves of the wild  
barleys, are in the Arthur herbarium.

194\*. PUCCINIA CHRYSANTHEMI Roze. II, Bull. Soc. Mycol.  
de France 16: 92. 1900.

On leaves of *Chrysanthemum* sp. cult. Collected November,  
1915, at Salt Lake City, by Kenneth Robbins, a pupil in Botany  
at the Salt Lake High School.

195\*. PUCCINIA COLLINSIAE P. Henn. I, Hedwigia 37: 269.  
1898

On *Collinsia parviflora* Dougl. Collected May 29, 1917, at  
Plain City, near the Hot Springs above Ogden, Weber Co., by  
Wyatt W. Jones, botanist of the American Smelter and Refining



Company's Experiment Station. A specimen of this collection was sent to Dr. Arthur for determination, and he puts it here provisionally.

196\*. PUCCINIA CONSIMILIS Ellis & Ev. I, Jour. Myc. 6: 120.  
1891

On leaves of *Sisymbrium incisum* Engelm. Collected by Professor Marcus E. Jones (No. 7788), at White River, Uinta Co., May 25, 1908, at an altitude of 1800 m.

197\*. PUCCINIA GENTIANAE (Strauss) Link. II, III, Willd. Sp. Pl. 6<sup>2</sup>: 73. 1825

On *Gentiana affinis* Griseb.: 2307, August 9, 1916, Barclay Station, Parley's Canyon, Salt Lake Co., alt. 1860 m. Collected by Garrett & Giddings. (Exsic. Fungi Utahenses 231.) Also collected on this same host by Professor Marcus E. Jones (No. 2163), August 15, 1881, at Park City, Summit Co., alt. 2400 m.

On *Gentiana Amarella* L. II, III. Collected by Professor Marcus E. Jones (No. 5913), August 27, 1894, at Marysvale, Piute Co., alt. 1950 m.

198\*. PUCCINIA GLUMARUM (Schmidt) Ericks. & Henn. II, Zeits. Pflanzenkr. 4: 197. 1894

Two collections recorded under No. 93 of this list (Mycologia 2: 293. 1910) as *Puccinia rubigo-vera* (Nos. 1010 on *Elymus glaucus* Buckl. and 2038 on *Hordeum jubatum* L.) should be referred to this species, as determined by Dr. H. B. Humphrey in Phytopathology 7: 143. 1917. These two collections were distributed in Fungi Utahenses under the numbers 138 and 191 respectively. Another collection also distributed in Fungi Utahenses (No. 192) as *P. rubigo-vera* was determined by Dr. Humphrey at the same time as referable to this species. This collection should be recorded as follows: On *Hordeum pusillum* Nutt.: 2083, August 26, 1909, Parley's Park, Parley's Canyon, Salt Lake Co.

Dr. O'Gara has reported in Science N. S. 44: 610. 1916, the



occurrence of this rust in wheat fields north and west of Ogden.

The aecial stage of this rust has never been discovered.

199\*. PUCCINIA LUXURIOSA Sydow. III, Monog. Ured. 1: 812.

1904

On *Sporobolus airoides* Torr. Collected by Ellsworth Bethel, Nov. 15, 1917, at Marysvale, Piute Co. According to Professor Bethel, the aecial stage of this rust is found on *Sarcobatus vermiculatus*, given in this list as the aecial stage of *Puccinia subnitens*, No. 105. (Mycologia 6: 245. 1914.)

200\*. PUCCINIA OENOTHERAE Vize, Grev. 5: 109. 1877

On leaves of *Sphaerostigma Utahense* Small: 2304, June 11, 1916, Carrington Island, Great Salt Lake, Tooele Co., alt. 1265 m. Not before reported on this host.

201\*. PUCCINIA PATRUELIS Arthur. II. Mycol. 1: 245. 1909

On *Carex* sp.: 2168, July 12, 1911, Gold Basin, La Sal Mts., San Juan Co., alt. about 2878 m.

In his Uredinales of Oregon, Dr. Jackson uses the combination *Puccinia hieraciata* (Schw.). Jackson for this rust.

202\*. PUCCINIA SWERTIAE Wint. I, Rabh. Krypt. Fl. 1: 205.

1881

On leaves of *Swertia Fritellaria* Rydb.: 2292, July 13, 1915, west bank of Silver Lake, Big Cottonwood Canyon, Salt Lake Co. Alt. 2615 m. This is apparently the first recorded collection of this species on this host, as well as the first collection of the rust in the State.

EXSICCATI Fungi Utahenses 241.

203\*. UROMYCES FUSCATUS Arthur. I, ii, III, Bull. Torrey Club

45: 142. 1918

On *Polygonum alpinum* All.: 2286, June 29, 1915, mountain-side south of Gogorza Station, Parley's Canyon, Summit Co. Alt. 1900 m.

EXSICCATI: Fungi Utahenses 244.



204\*. *UROMYCES PROBUS* Arthur. I, Bull. Torr. Club 38: 376.

1911

On *Sisyrinchium grandiflorum* Dougl.: Collected by Professor Marcus E. Jones, April 1, 1887, at Tooele, Tooele Co. This is labeled *Aecidium Sisyrinchi* in Professor Jones' herbarium, a name that apparently was never published.

205\*. *UROMYCES SOPHORAE* Peck.

Professor Jones reports having collected this rust in southeastern Utah. I have not seen his specimens.

EAST HIGH SCHOOL,  
SALT LAKE CITY, UTAH.





Garrett, A. O. 1919. "Smuts and rusts of Utah. III." *Mycologia* 11(4), 202–215.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/173511>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/246505>

**Holding Institution**

Smithsonian Libraries and Archives

**Sponsored by**

Biodiversity Heritage Library

**Copyright & Reuse**

Copyright Status: Not in copyright. The BHL knows of no copyright restrictions on this item.

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