

Proceedings of the Iowa Academy of Science

Volume 36 | Annual Issue

Article 22

1929

Notes on Fungi – 1928

G. W. Martin
State University of Iowa

Copyright ©1929 Iowa Academy of Science, Inc.

Follow this and additional works at: <https://scholarworks.uni.edu/pias>

Recommended Citation

Martin, G. W. (1929) "Notes on Fungi – 1928," *Proceedings of the Iowa Academy of Science*, 36(1), 127-130.

Available at: <https://scholarworks.uni.edu/pias/vol36/iss1/22>

This Research is brought to you for free and open access by the Iowa Academy of Science at UNI ScholarWorks. It has been accepted for inclusion in Proceedings of the Iowa Academy of Science by an authorized editor of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

NOTES ON IOWA FUNGI — 1928

G. W. MARTIN

1. The Iowa species of *Mutinus*

In their report on the Gasteromycetes of eastern Iowa, Macbride and Allin¹ include three species of *Mutinus*, *M. bovinus* Morgan (*M. elegans* (Mont.) E. Fischer), *M. caninus* (Huds.) Fr. and *M. brevis* B. & C. (= *M. ravenelii* (B. & C.) E. Fischer). Coker and Couch,² on the other hand, in their recent splendid work on the Gasteromycetes, recognize but two species as occurring in Eastern North America, namely *M. ravenelii* and *M. elegans*. For the latter they use the name *M. curtisii* (Berk.) E. Fischer, but since they, in common with most students of the subject, regard these names as synonyms, and since, as Burt³ pointed out many years ago, Montagne's name is the older, it should be used, and both *M. curtisii* and *M. bovinus* relegated to synonymy. Burt (l.c.) had the opportunity to compare numerous American and European collections of *Mutinus* and came to the conclusion that *M. ravenelii* and *M. caninus* were synonyms. With this opinion Coker and Couch agree, although with some expression of doubt, sufficient, at least, to warrant them in using for the American material the specific name *ravenelii*, which dates only from 1855, rather than in following Burt by using Hudson's name *caninus* which dates from the eighteenth century and was adopted by Persoon. Lloyd⁴ recognizes three species, *M. elegans*, *M. ravenelii* and *M. caninus*, as occurring in the United States, illustrating all three. The last-named he regards as rare, but well authenticated, and cites specimens from Canada, Maryland, and New Jersey in the Lloyd herbarium.

Certainly, three species of *Mutinus* occur in eastern Iowa. Two of these, *M. elegans* and *M. ravenelii*, grow in forests and are fairly common. They agree perfectly with the ordinary conception of these species, as described and illustrated by Coker & Couch, as the accompanying illustrations (Figs. 3 and 4) will testify. The third grows on the prairie and is rarely collected. It is very much more distinct from either of the other two species than they are

¹ Nat. Hist. Bull. State Univ. Iowa 4: 33-66. 1896.

² Gasteromycetes of the Eastern U. S. and Canada. 1928.

³ Bot. Gazette 12: 379-391. 1896.

⁴ Synopsis of the known phalloids. 1909.

from each other, being characterized by a long, and very slender stalk, usually tapering downward, and an abruptly swollen, short oval, glebal tip. I have seen but one fresh collection, brought in by Mr. R. P. Adams, but Professor Shimek tells me that he has several times found it on the prairie. It agrees exactly with *M. caninus* (Huds.) Fr. as described and illustrated by Hollós⁵ and by Lloyd. Burt's description of *M. caninus*, on the other hand, is very satisfactory for *M. ravenelii* but does not apply to *M. caninus* in the sense of Hollós or Lloyd. My observations lead me to believe, therefore, that Macbride and Allin, and Lloyd are correct in considering that there are three species of *Mutinus* in the eastern United States, and that *M. caninus*, while rare, does occur, and is strikingly different from *M. ravenelii*. This makes it seem probable that the species called *M. caninus* by Burt and made the subject of his careful morphological study⁶ was in reality *M. ravenelii*.

We have no recent collections of *M. caninus* in the herbarium of the State University of Iowa, but two examples collected by Dr. Macbride in Johnson County in 1889, and labelled doubtfully *Ithyphallus tenuis*, seem certainly to represent this species. A photograph of one of these specimens is reproduced (Fig. 1) and may be compared with the reproduction of the figure of Lloyd (Fig. 2).

2. *Stypella minor* Möller

So far as I can discover from available literature, the curious genus *Stypella*, of the Tremellaceae, has heretofore been reported only from Brazil. It is interesting, therefore, to be able to record the occurrence of a species in Iowa. The genus is characterized by its peculiar growth habit, consisting of closely aggregated, minute pustules arising from a fine subiculum. The individual pustules are irregular, or somewhat hemispherical, and rarely exceed $\frac{1}{2}$ mm. in diameter, each being composed of a clump of tremellaceous basidia mingled with hair-like paraphyses. To the naked eye the fructification has the aspect of a delicate *Corticium*, faintly grayish in color (pallid neutral gray of Ridgway) and extending for several centimeters on the substratum. Under the hand lens its peculiar papillate character becomes evident.

The two species originally described by Möller⁷ differ mainly in the shape and size of the spores and in the presence or absence of gloeocystidia. I assign our Iowa material to *S. minor* Möller because of its oval spores and lack of gloeocystidia. In size of basidia

⁵ Die Gasteromyceten Ungarns. 1904.

⁶ Ann. of Botany 10: 343-372. 1896.

⁷ Protobasidiomyceten. Jena 1895.

and length of the so-called sterigmata it is intermediate between Möller's two species, but these characters are of subordinate significance.

Burt⁸ regards *Stypella* as a synonym of *Sebacina*. It is undoubtedly close to that genus and judgment as to generic boundaries must always vary, but in my opinion *Stypella* is sufficiently distinct to justify its maintenance. Killermann⁹ who merges *Tremelodendron* with *Sebacina*, maintains *Stypella* as distinct.

The fungus was found on rotten wood in Johnson County, and seems to be rare, but may merely be unnoticed. Möller's familiar drawing gives the habit well.

3. *Roesleria pallida* (Pers.) Sacc.

This interesting fungus seems to have been collected occasionally on the roots of *Vitis* in various parts of the United States, as well as in Europe. Miss Ida Iversen found it growing on its usual host in Johnson County in September of 1928.

The species has had rather a checkered taxonomic history. It was long placed among the lichens and either included in the genera *Calicium* and *Coniocybe* or regarded as closely related to them. Saccardo¹⁰ says of this species: "Thallum proprium non vidi, quo deficiente potius fungus videtur quam lichen." Schröter, in Engler and Prantl¹¹ places it in the Geoglossaceae. Durand,¹² however, excludes it from that family.

Arnaud¹³ studied and illustrated this fungus in France but did not change its taxonomic position from the Caliciaceae. The recent Gäumann — Dodge text¹⁴ copies Arnaud's figure, but places it in the Geoglossaceae. The authors regard it as an extremely primitive form suggesting the ancestral type of forms with a true cup-like apothecium, as well as the Geoglossaceae.

Unfortunately our specimens, although varying greatly in size, all seem to be mature. Only a study of developmental stages can throw light on its true position, but certainly the mature fruiting body, with its minute, flattened, annulate spores retained in a mazaedium, bears slight resemblance to any of the unquestioned genera of the Geoglossaceae.

⁸ *Thelephoraceae of N. A.* 5. *Ann. Mo. Bot. Gard.* 2: 749. 1915.

⁹ *Die natürlichen Pflanzenfamilien* 2 ed. v. 8. 1928.

¹⁰ *Sylloge fungorum* 8: 826. 1889.

¹¹ *Die natürlichen Pflanzenfamilien* 1 Teil 1 Abt.: 167. 1894.

¹² *Ann. Myc.* 6: 463. 1906.

¹³ *Ann. de l'école nat. d'agriculture de Montpellier* 12: 29. 1912.

¹⁴ *Comp. morph. of fungi.* 1928.

4. *Ustilago sieglingiae* Ricker

The distribution of this smut is given by Clinton¹⁵ as Florida and that of the closely related *U. triplasilidis* E. & E. as Mississippi. In November, 1928, Mr. R. P. Adams collected it abundantly on the original host, *Triplasis purpurea*, on the Big Mound in Louisa County, thus achieving a notable enlargement of the published range. Dr. Clinton has kindly verified the determination.

EXPLANATION OF PLATE

Fig. 1. *Mutinus caninus*, from herbarium specimen collected in Johnson County in 1889.

Fig. 2. *Mutinus caninus*. Copied from Lloyd.

Fig. 3. *Mutinus elegans*, from fresh collection.

Fig. 4. *Mutinus ravenelii*, from fresh collection.

Fig. 5. *Roesleria pallida*, habit slightly reduced.

Fig. 6. *Roesleria pallida*. Longitudinal section, x 20.

STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.

¹⁵ N. A. Flora 7 (1): 12. 1905.

