

BRIEFER ARTICLES

A NEW SPECIES OF NEOVOSSIA.

(WITH ONE FIGURE)

DURING September 1899, while collecting near Colo, Iowa, I found that the ovaries of *Phragmites communis* were affected by a peculiar smut. The specimen proved so interesting that Dr. Pammel, to whom I referred the matter, sent material to Dr. Farlow, who replied: "Your spores are perhaps a trifle smaller and have a slightly more marked epispore than in *Neovossia Moliniae*. Still the differences are very slight, and without further study I should not know whether to call them specifically different or not. You may have the material to determine this point." Accordingly Professor Hume, who is working upon the Ustilagineæ of Iowa, after a thorough examination and comparison of the specimens, decided that it was sufficiently distinct for a new species.

This genus was founded and distributed by von Thümen,¹ who called it Vossia. As this name had been given to a genus of grasses, Körnicke² changed it to Neovossia. Saccardo,³ in his treatment of the Ustilagineæ, refers this fungus to *Tilletia Moliniae* (Thüm.) Wint., following Winter.⁴ Dietel,⁵ in describing the Ustilagineæ and Tilletiineæ, uses the Neovossia of Körnicke. Masee,⁶ in his revision of the genus Tilletia, refers it to Neovossia, saying: "This species differs from Tilletia in the mode of spore germination, and must consequently return to Neovossia." Quite recently, Magnus⁷ has discussed Neovossia, and considers it separated from Tilletia by the fact, discovered by Brefeld⁸, that in germination the conidia do not copulate. He also considers that von Thümen has well founded the genus upon the fact

¹ Mycotheca universalis 1216. 1878; Oester. Bot. Zeitschr. 29: 18. 1879.

² Oester. Bot. Zeitschr. 29: 217. 1879.

³ Sylloge Fung. 7: 486. 1888.

⁴ Rabenh. Krypt. Fl. Pilze 1: 109. 1884.

⁵ Ustil. u. Tillet. Nat. Pflanzfam. 1: (Lief. 160). 1897.

⁶ Bull. Roy. Gard. Kew 153, 154. 1899.

⁷ Ber. d. deut. bot. Gesells. 18: 73. 1900.

⁸ Unters. Mykol. 12: 210.

that the ripe spores, with the upper end of the sterigmata, break off from the full grown sterigmata. There seems to be sufficient reason, therefore, for establishing the genus *Neovossia*.

Neovossia Iowensis Hume and Hodson, n. sp.—Spore mass filling the ovary, black; spores globose, subglobose, or ovate, brownish-black,

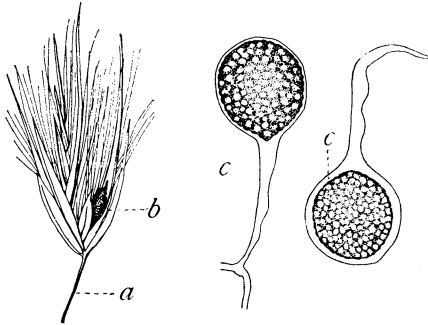


FIG. 1.—*NEOVOSSIA IOWENSIS*; a, spikelet of *Phragmites communis*; b, affected ovary; c, spores.

opaque, 16×20 to $24 \times 28 \mu$, enclosed in a hyaline capsule; appendage slender, hyaline, two or three times the length of the spore; epispore apparently pitted.

A careful comparison with specimen no. 1216 of von Thümen's *Mycotheca universalis* leads to the belief that the Iowa specimens are specifically distinct. The spores differ from those of *Neovossia Molinia* (Thüm.) Körn. in being darker in color, broader and shorter, and generally blunter at the end opposite the appendage. The markings of the spore, also, are somewhat coarser. Ten spores of von Thümen's specimen, selected at random, gave an average of $27.7 \times 17 \mu$, while the spores taken from the material collected at Colo, Iowa, gave $24.8 \times 18.9 \mu$.—E. R. HODSON, *Ames, Iowa*.

NOTE ON THE ORIGIN OF TANNIN IN GALLS.¹

THE origin of the different plant constituents is as much a mystery as their functions, and neither of these questions can be settled until more observations have been made. In considering the origin of tannin in galls the writer limits his observations for the present to the examinations of the common "ink-ball" or "ink-gall," which is produced on *Quercus coccinea* Wang., probably by *Cynips aciculata* O. S. The same kind of gall is produced on other oaks, as Mr. Beadle, of the Biltmore Herbarium, has sent me specimens which were produced on *Quercus imbricaria* Michx.

¹Presented at the New York Meeting of the American Association for the Advancement of Science, June 1900.