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## Illustrations of the Fleshy Fungi of Iowa

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## ILLUSTRATIONS OF THE FLESHY FUNGI OF IOWA

### VIII. The Stinkhorns

JOSEPH C. GILMAN

The stinkhorn fungi have been chosen as the subject of the eighth group of illustrations of the fleshy fungi of Iowa. <sup>1/</sup> They are an interesting group because of their fetid odor that attracts flesh-eating flies, as well as their fantastic morphology. In the immature state their basidiocarps lie just below the surface of the soil, as globose to oval bodies composed of a thin leathery outer membrane over a gelatinous layer which in turn is bounded on the inside by a second membrane. The whole composes the volva which contains the unexpanded stem and spore mass. After a rain the stem expands, pushing the spore mass up into the air. The stem is spongy and hollow and expansion is rapid. The exposed spore mass which is sticky or slimy contains the greater part of the fetid material. Five species in five genera are illustrated and described. The descriptions are taken from Kambly, P. E. and R. E. Lee, *The Gasteromycetes of Iowa*. <sup>2/</sup>

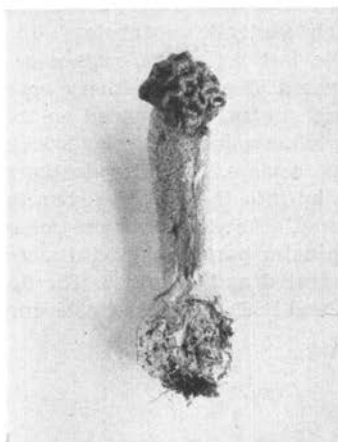


1. *Lysurus sulcatus* (C. & H.) Cunn. Fig. 1.

- <sup>1/</sup> Previous numbers of this series appeared in the Iowa Academy of Science Proceedings as follows:
- I. The purple brown spored agarics Vol. 47: 83-90. 1940
  - II. The white-spored agarics. Vol. 48: 99-115. 1941
  - II. The black-spored agarics. Vol. 49: 153-158. 1942
  - IV. Common fleshy ascomycetes. Vol. 49: 159-171. 1942
  - V. The pink-spored agarics Vol. 50: 159-163. 1943
  - VI. Fleshy poroid forms. Vol. 51: 191-197. 1944
  - VII. Some common puff-balls Vol. 52: 113-119. 1945
- <sup>2/</sup> Kambly, Paul E. and Robert E. Lee  
1936. *The Gasteromycetes of Iowa*. Univ. Iowa Studies. Studies in Natur. Hist. 17: 130-133.

Eggs subglobose to ovate, 1.5-3 cm. in diameter; rising from a basal cordlike mycelium; stem white, hollow, 10-12 cm. tall at maturity, usually enlarged upward; apical receptacle consisting of 5-8 simple lance-shaped arms, their outer surface continuous with the stem; spore mass greenish black, borne on the surface of the arms; spores hyaline or tinted, smooth, elliptical, 3.4-4x1.5-2.2 microns; fetid.

Rare; in cultivated soil.

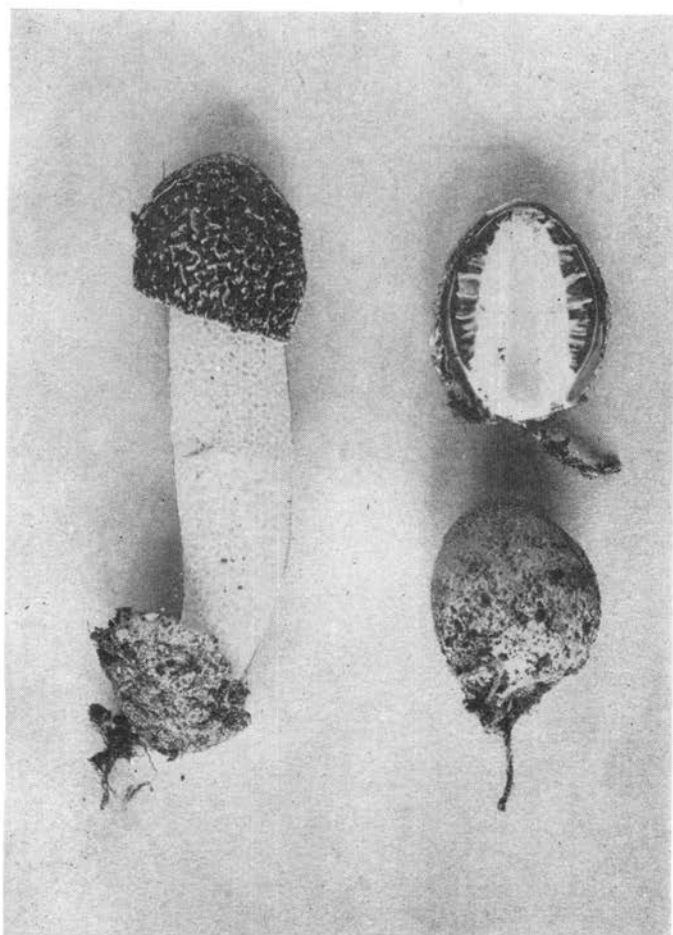


2. *Simblum sphaerocephalum* Schlect. Fig. 2.

Basidiocarp 7-9 cm. tall, stipe distinctly elongated, 1-1.6 cm. in diameter, hollow, club-shaped, tapering to a narrow basal attachment in the bottom of the large white volva and capped by an enlarged subglobose network of thick vein-like strands which holds the spore mass; color bright red above, fading below; very fetid; spores elliptic, smooth, 3.2-4.5x1.5-2 microns.

Not common; in cultivated soils.

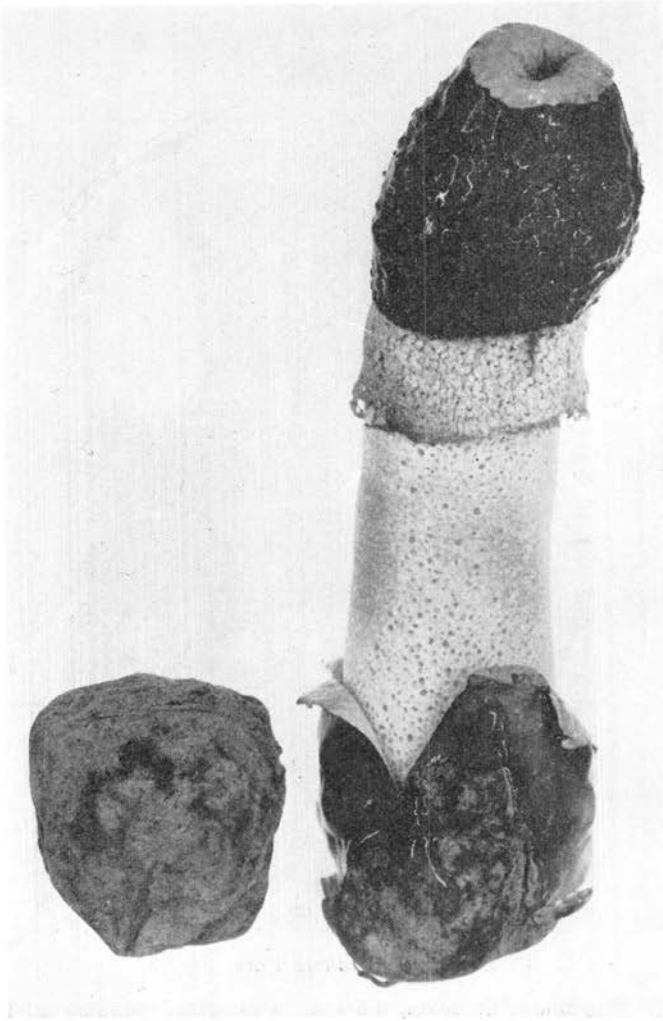
Conard reported this species from Iowa in 1911. (Iowa Acad. Sci. Proc. 19: 103).



3. *Phallus impudicus* Pers. Fig. 3.

Eggs subglobose to ovate, 3-5 cm. in diameter, pinkish white to pinkish grey, with basal cord-like attachment; mature basidiocarp stem cylindrical hollow, 7-20 cm. tall; pileus reticulate, up to 4.5 cm. long, apically attached; veil thin, rudimentary; spore mass greenish black, covering the outer layer of the pileus, fetid; spores oblong to elliptical, smooth 2.5-5x1.3-2 microns.

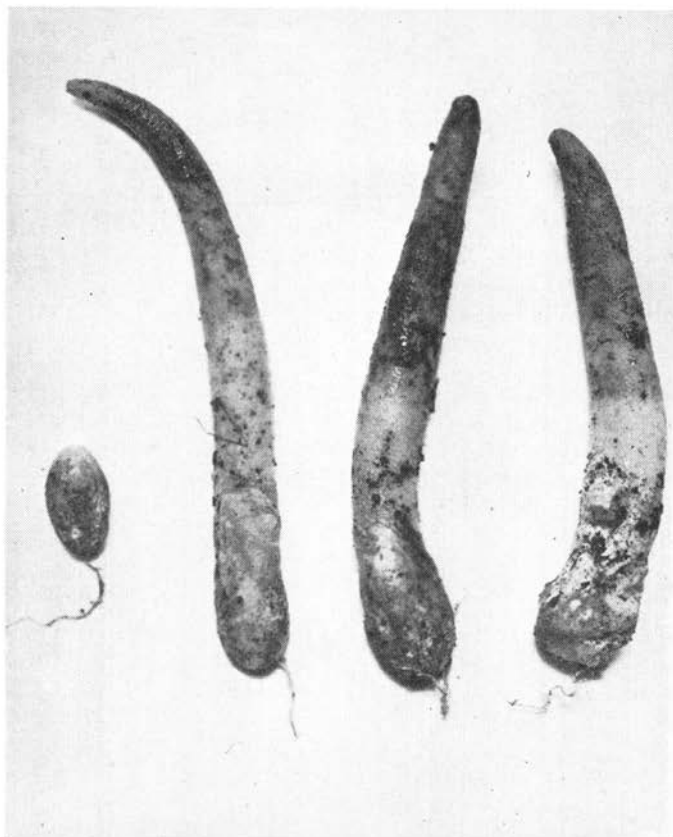
On ground in woods, lawns and gardens.



4. *Dictyophora duplicata* (Bosc) E. Fisch. Fig. 4.

Eggs subglobose to ovate, 4-5 cm. in diameter with a thick cord-like attachment; mature basidiocarp stem cylindrical, hollow, 15-20 cm. tall, 2-5-3.5 cm. in diameter, with sheathing volva at the base; volva white to light brown; pileus apical, up to 5 cm. in length, strongly reticulate, attached to the ring-like apex of the stem; indusium prominent, net-like, often extending far below the pileus; spore mass greenish black, covering the pileus, fetid; spores smooth, elliptical, 3.5-4x1-2 microns.

On ground in woods.



5. *Mutinus elegans* (Mont.) E. Fisch. Fig. 5.

Eggs white, ovate, 3-5 cm. in diameter; mature basidiocarp 6-17 cm. tall, stem cylindrical below, 2-3 cm. in diameter, then tapering upward to a blunt point, on which the spore mass is borne, the tip often perforate; color bright red under and below the spore mass, fading to pale pink or white below; volva sheathing the base; very fetid; spores smooth, elliptical, 4-7x2-3 microns.

In rich soil in woods and fields.

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