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## Illustrations of the Fleshy Fungi of Iowa VI. Fleshy Poroid Forms

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## ILLUSTRATIONS OF THE FLESHY FUNGI OF IOWA

### VI. Fleshy poroid forms.

JOSEPH C. GILMAN

The fleshy poroid fungi which are illustrated in this paper are found in two of the families of the larger fungi, the Polyporaceae and the Boletaceae. Both families contain so many species that a comprehensive treatment of either could not be undertaken in the space available for this series of illustrations. Therefore only five very conspicuous and common species are presented.

Both families are characterized by the fact that the spores on their basidia are arranged in hymenia (fruiting layers) that line pores on the surface of the sporophore. These pores are on the lower surface of umbrella-like caps in some cases and on the lower surfaces of brackets in others. The distinction between the families is the possession by the Boletaceae of a layer just above the pores that allows the pores to be easily stripped from the remainder of the cap. They are usually fleshy in consistency and vividly colored. Three species in three genera are illustrated. *Boletus chrysenteron* seems to be the commonest Boletus in the vicinity of Ames. Other species may well be better represented in other localities, particularly in the eastern part of the state, but the difficulties of identification in this genus and the lack of opportunity to study them have limited the choice. *Strobilomyces strobilaceus* is widespread in the state and so characteristic that once seen it is seldom forgotten. *Boletinus porosus* is also rather easily recognized. Coker and Beers (1943) have recently described the species of Boletaceae from North Carolina and beautifully illustrated them. The descriptions accompanying the illustrations here are taken from their book with slight modifications to bring them into line with the Iowa material.

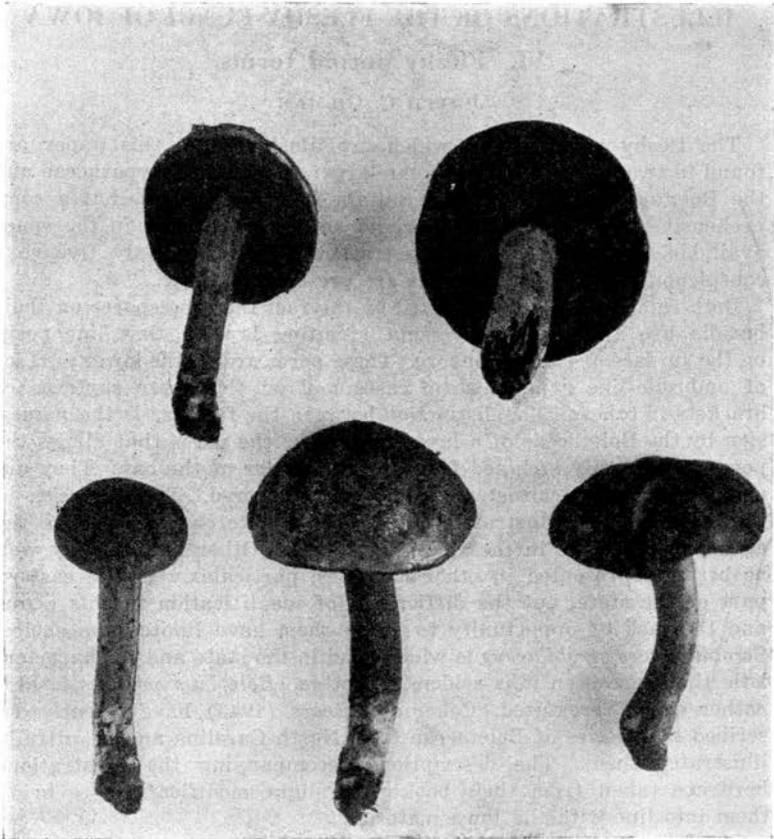
The Polyporaceae chosen both belong to the same genus, *Polyporus*, and are two of the more conspicuous fleshy forms. Many species in this family are leathery or woody and hence would scarcely be treated in a paper on fleshy fungi. Most of the genera within the group are wood-inhabiting fungi and cause considerable loss both in standing timber and in manufactured lumber. The descriptions used for *Polyporus sulphureus* and *Polyporus squamosus* are taken from Overholts (1915) who treated the midwestern forms. The Polyporaceae of Iowa have also been well covered by Wolf (1931) in the University of Iowa Studies.

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Coker, W. C. and A. H. Beers  
1943. The Boletaceae of North Carolina, Univ. North Carolina Press, Chapel Hill.

Overholts, L. O.  
1915. The Polyporaceae of the Middle Western United States. Washington Univ. Studies 3, Part I, No. 1: 1-98.

Wolf, M. M.  
1931. The Polyporaceae of Iowa. Univ. of Iowa Studies. Studies in Nat. Hist. 14: 1-93.



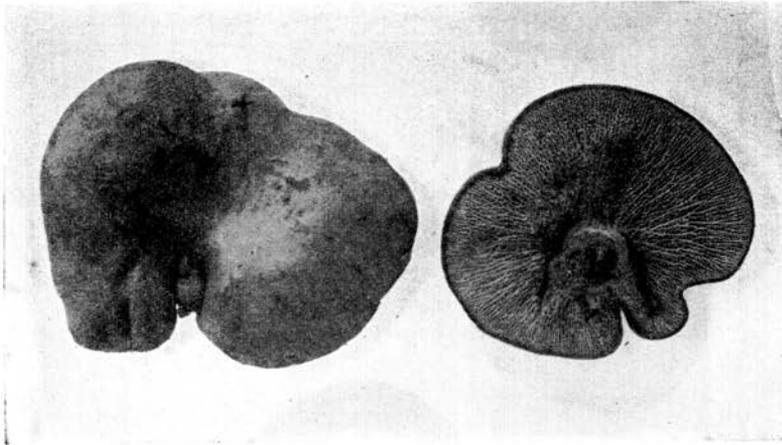
*Boletus chrysenteron* (Bull.) Fr.

Cap 3—7 cm. broad, convex or plane, dry, dull, subtomentose, dark drab brown becoming chestnut brown at maturity, soon netted with delicate cracks of a reddish color, margin thin. Flesh whitish to light yellow, changing to blue-green when cut. Tubes up to 8 mm. long, depressed at the stem, mouths rather large, irregular, clear light yellow when young becoming darker to brownish olive in age, mouths stained reddish turning blue when rubbed. Stem up to 6 cm. long, 6-8mm. thick, nearly equal, crooked, surface granular dotted, pale above, rosy below. Spores dark olive brown in mass, elliptic to slightly broader at the proximal end, 4-5x8-12 $\mu$ .

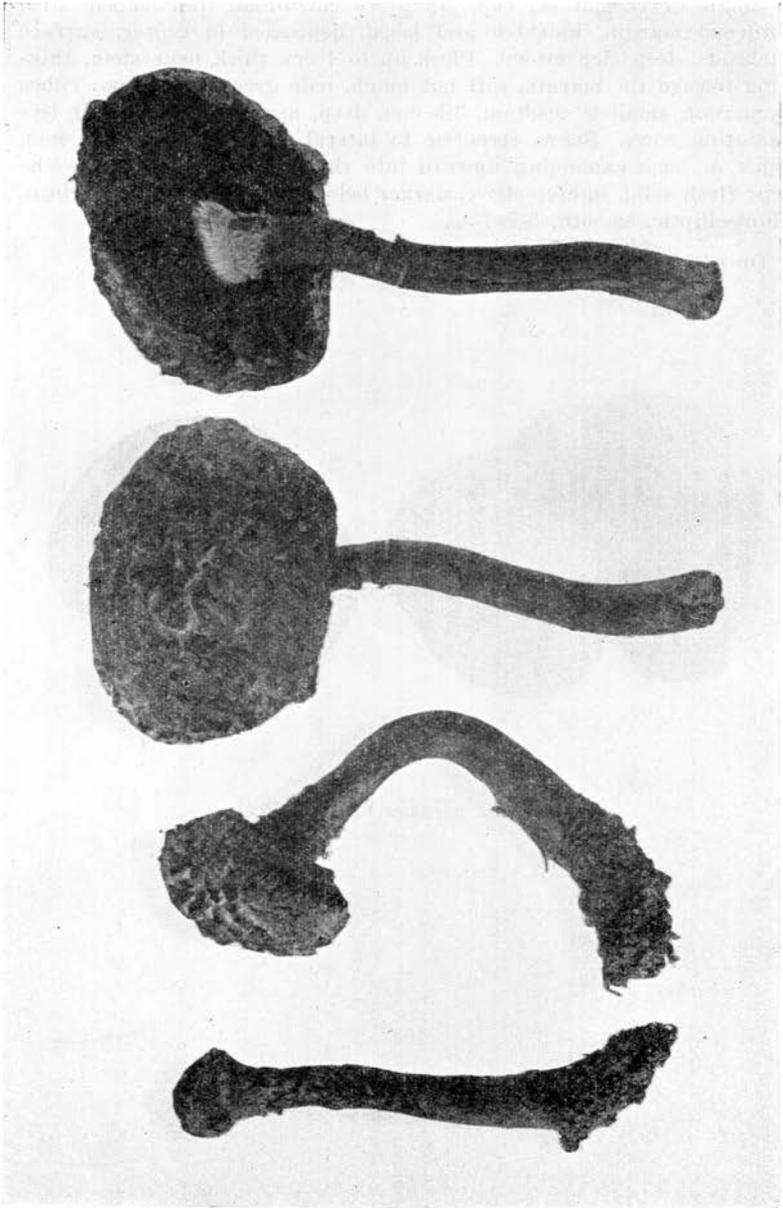
In woods, July and August.

Single or caespitose; caps up to 10 cm. broad, fan-shaped, with inturned margin, indented and lobed, depressed in center, surface glabrous, deep rich brown. Flesh up to 1 cm. thick near stem, thinning toward the margin, soft but tough, pale greenish yellow. Tubes decurrent, small to medium, 3-5 mm. deep, arranged in more or less radiating rows. Stems eccentric to lateral, 2-3 cm. long, 6-10 mm. thick at base expanding upward into the cap, reticulated near the top; flesh solid, lighter above, darker below. Spores dull olive brown, blunt-elliptic, smooth,  $5-7 \times 7-9 \mu$ .

On moist soil in open woods, June to October.



*Boletinus porosus* (Berk.) Peck



*Strobilomyces strobilaceus*

*Strobilomyces strobilaceus* (Scop.) Beck.

## Cone-like boletus

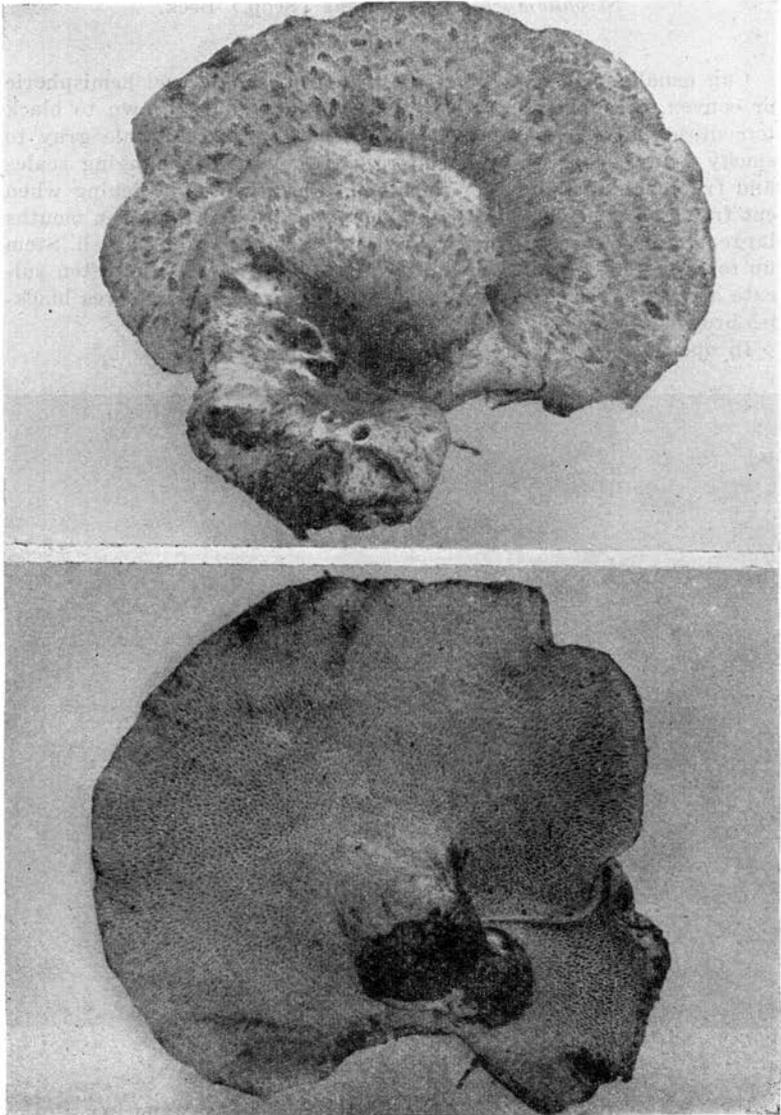
Cap usually 5-15 cm. broad, fleshy, firm, subglobose, hemispheric or convex, then plane; dry, covered with large dark brown to black tomentose warts or scales, with intervening cracks of pale gray to smoky white color; the broad margin irregular with hanging scales and fragments of the rather thick veil. Flesh white, darkening when cut from red to black. Tubes long, depressed around the stem, mouths large, angular, covered when young with a floccose whitish veil. Stem up to 11 cm. long, equal or slightly tapering upward, solid, often sulcate at the top, covered with a tomentum like the cap. Spores blackish-brown, subglobose, rough, 7-9x9-10 $\mu$ .

In open woods, July to September. Edible.

*Polyporus sulphureus* Bull. ex Fries

Cap fleshy and watery to rather firm, sessile or tapering at the base and appearing substipitate, 5-20x4-12x0.5-2.5 cm.; sulphur-yellow to bright orange, fading to almost white with age, nearly glabrous. Flesh white or pale yellow 0.5-2 cm. thick; tubes 1-4 mm. long, the mouths bright sulphur-yellow, or fading with age, angular, averaging 2-4 per mm. Spores ovoid to subglobose, smooth hyalin, 5-7x4-5 $\mu$ ; cystidia none.

Growing on stumps and trunks of deciduous trees. Edible when



*Polyporus squamosus*

*Polyporus squamosus* Hudson ex Fries

Cap somewhat fleshy when fresh, short stipitate or almost sessile, 6-25 cm. broad, 0.5-4 cm. thick, whitish to dingy yellowish or brownish, covered with large appressed scales. Flesh white, 0.5-3.5 cm. thick. Tubes 2-8 mm. long, decurrent, the mouths white or yellowish, large and angular 1-2.5 mm. broad. Stem lateral, often rudimentary, black at the base, netted above, 1-5 cm. long, 1 cm. or more thick. Spores oblong-cylindric, smooth, hyalin, 10-12x4-6 $\mu$ ; cystidia none.

Growing on living deciduous trees. Throughout the summer.

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