

A NEW SPECIES OF LEPIOTA¹

S. M. ZELLER

(WITH PLATE 26)

This mushroom is one of the very first to make its appearance after the early fall rains. It is one of the most common Agarics of the fall season to be found throughout the Willamette Valley. *Lepiota Barssii* grows in locations similar to those where the smooth *Lepiota* (*L. naucina*) is found, the two sometimes near each other under the same ecologic and climatic conditions. *L. Barssii* generally comes out a few days earlier than *L. naucina* but the latter may be found for a considerable time after *L. Barssii* has disappeared.

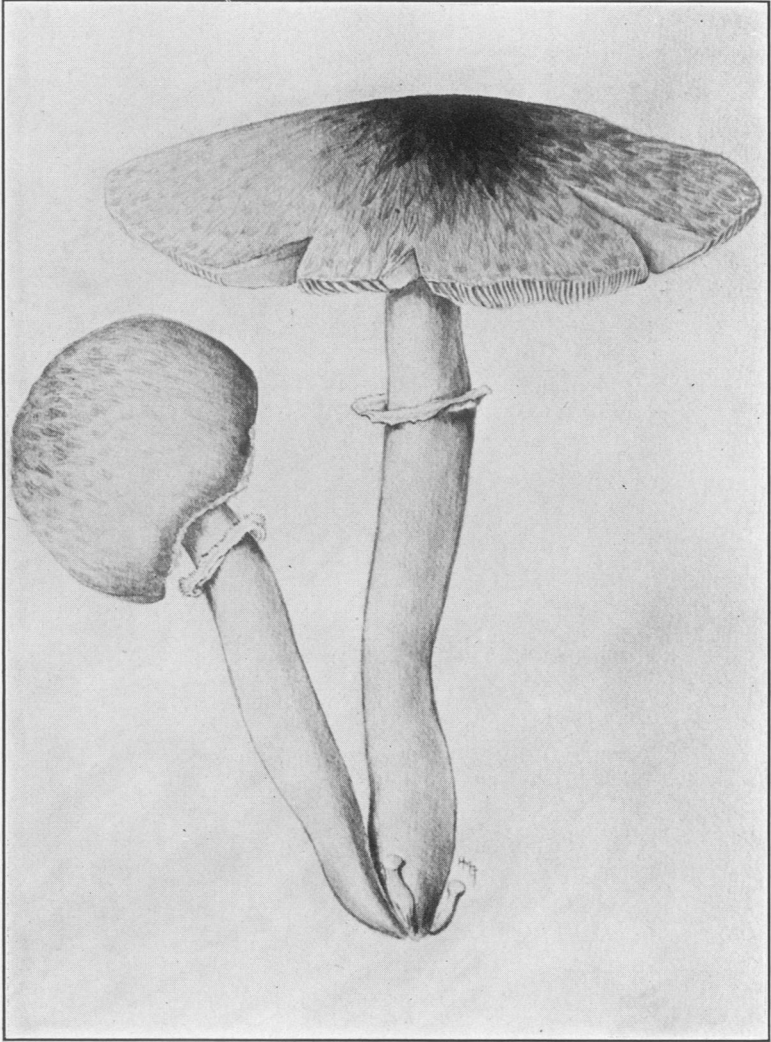
L. Barssii occurs in pastures, plowed fields and gardens, or in stubble (grain) fields. Its fructifications thrive and grow to their largest size around old straw stacks or manure piles. A favorable habitat is strawberry or potato plantings.

In favorable locations this mushroom may be collected in large quantities and it has proven to be very palatable. For many years it has been collected by mycophagists without discrimination from *L. naucina*, with which it compares very favorably as an edible mushroom.

This mushroom is a beautiful *Lepiota* belonging to the group *Procerae-annulosae*, as described by Kauffman.² It is large and of stately form, as illustrated in plate 26, a photograph of a water-color painting by Dr. Helen M. Gilkey. *L. Barssii* is perhaps more closely related to *L. naucina* than to other species of the genus, but is easily distinguished by the characteristically gray color and scaly surface of the pileus. In *L. naucina* the gills are more nearly equal, then slightly narrowed behind, sometimes almost sinuately indented, and of much softer texture than those of the same age in *L. Barssii*. The stem of the latter is not enlarged at the base as in *L. naucina*.

¹ Published as technical paper No. 210 with the approval of the Director of the Oregon Agricultural Experiment Station. Contribution from the Department of Botany and Plant Pathology.

² Kauffman, C. H. The genus *Lepiota* in the United States. Mich. Acad. Sci. Papers 4: 311-344. *illus.* 1924.



LEPIOTA BARSSII

The writer takes pleasure in dedicating this species to his botanical colleague, H. P. Barss, Head Professor of Botany and Plant Pathology, Oregon State Agricultural College. Professor Barss was one of the first to notice the characters by which this species is distinguished from *L. naucina*. The diagnostic description follows:

***Lepiota Barssii* sp. nov.**

Gregaria vel caespitosa: pileo carnoso, 7–15 cm. lato primito subglobose vel ovoideo dein convexo vel plano-expanso obtuso-umbonato vel subumbilicato; margine interdum radiatim rimoso; superficie arida fumoso-grisea vel “drab,”³ disco fuscidiore, fusco vel “Cinnamon drab,”³ squamulis fibrillosis fuscis vestito; contextu primito albo dein sordido postice crasso margine pertenui, odore et sapore grato; lamellis 7–16 mm. latis inaequalis postice tenuitiore subconfertis liberis albis mutans stramineus, acie levis sterilis; stipite 8–18 mm. crasso 8–12 cm. longo subaequali, farcto dein cavo, glabro vel sericeo albo; annulo amplo supero collarioideo saepe mobili persistenti albo, extus laminis stipitis et veli efformato; sporis ellipsoideis-ovoideis levibus albis guttulatis, magnitudinis variabilis $7.5-9.5 \times 5-6 \mu$.

Ad terram in pratis et in horto, Oregon occid., Amer. Bor.

Gregarious or caespitose; *pileus* 7–15 cm. broad, fleshy, at first subglobose to ovoid, then convex to plano-expanded, obtusely umbonate to subumbilicate, sometimes splitting radially at margin, *surface* dry, smoke-gray to drab with darker, fuscous or cinnamon darb umbo, covered by fibrillose, fuscous scales; *flesh* at first white, then sordid, thick at disk but very thin toward margin; *gills* 7–16 mm. broad, unequal, narrower behind, close but not crowded, free, edge even, sterile, white changing slightly stramineous; *stem* stout, 8–18 mm. broad above, 10–15 mm. broad below, 8–12 cm. long, almost equal, stuffed then hollow, glabrous or silky above and below the ring, white within and without; *annulus* formed from veil and outer layer of stem, white, collar-like, persistent, superior, often movable at maturity; *spores* ellipsoid-ovoid, variable in size in same plant, $7.5-9.5 \times 5-6$ (ave. $7.7-5.2$) μ , smooth, white, guttulate; *odor* and *taste* pleasant.

In pastures, plowed fields, or gardens, September. Very common throughout the Willamette Valley, western Oregon.

OREGON STATE AGRICULTURE COLLEGE,
CORVALLIS, OREGON.

EXPLANATION OF PLATE 26

Lepiota Barssii. Photograph of a water-color painting by Dr. Helen M. Gilkey.

³ Ridgway, Color Standard.