LEPIOTA AMERICANA, AN IMMIGRANT EDIBLE MUSHROOM

By JOSÉ MIGUEL MENDOZA

Mycologist, National Museum Division, Bureau of Science, Manila

and

SIMEONA LEUS-PALO

Junior Mycologist, National Museum Division, Bureau of Science, Manila

TWO PLATES

Despite the great abundance of mushrooms in the Philippines, only a few have been really tested for their edibility. While some may prove poisonous to some persons, they may prove edible to others. Of the large number of edible mushrooms, a considerable quantity goes to waste yearly during the mushroom season for lack of information about them, and the number actually reaching the family table is surprisingly small. This is especially true of the many species of *Lepiota* because some members of this genus are known to be poisonous or of a suspicious character. For example, *Lepiota chlorospora* often causes poisoning in many people, hence the mushroom collector who is familiar with this species looks askance at any mushroom that resembles it. Another species, *Lepiota cepaestipes* Fr.,[1] has been found recently by the senior author to be poisonous. Indeed, because a certain mushroom is known to be poisonous or suspected of being poisonous, the rest of its kind are often erroneously believed to be dangerous. In fact, many, including the numerous species of *Lepiota*, are palatable and safe to eat. We feel, therefore, that those mushrooms that have been found edible, especially the little known species, should be reported from time to time so that their good qualities and other characteristics may become familiar to the people. In this way we hope to add to the short list of edible mushrooms in the Philippines.

LEPIOTA AMERICANA Peck. Plates 1 and 2.

Lepiota americana PECK in New York State Cab. Rept. 23 (1871) 71; SACCARDO, Syl. Fung. 5 (1887) 43; ATKINSON, Mushrooms (1911) 80, *f. 82;* MURRILL, Mycologia 3 (1911) 168, *t. 49, f. 6;* KAUFFMAN, Agaricaceae of Michigan 1 (1918) 645.

[1] This poisonous mushroom will be reported in a separate paper.

Pileus [2] white, becoming dark brown on maturity, 5 to 14 cm broad, convex, umbonate to subumbonate at maturity, when young somewhat conical; cuticle at first reddish brown and continuous, soon breaking into scales except at the umbo; scales scattered, appressed; margin somewhat inrolled, striate, laciniate; when bruised entire plant turns pinkish to reddish brown. Gills free, white, broad, 7 to 9 mm wide. Stipe hollow, white, becoming brown in age, enlarged at the base, tapering upward, 6 to 11 cm long, 9 to 15 mm in diameter at the base, slender above the ring, 7 to 10 mm in diameter. Annulus broad, very conspicuous, 1.3 to 2.2 cm wide, 1.6 to 2.5 cm from the pileus. Basidia clavate, granular when young; granules disappearing in age, bearing 4 slender sterigmata, 18 to 30 μ long, 8.4 to 10.5 μ broad, average 24.6 μ long, 9.1 μ wide. Spores subellipsoid guttulate, smooth, hyaline, measuring from 8.5 to 10.5 μ long, 5.0 to 7.2 μ broad, average 9.9 μ long, 6.25 μ broad.

LUZON, Manila, Pandacan, *Bur. Sci. 55119, J. M. Mendoza,* July 29, 1933, on the ground, *Bur. Sci. 55137, 55139, J. M. Mendoza,* July 24, 1933, on the ground, *Bur. Sci. 55209, J. M. Mendoza,* July 25, 1933, on the ground, *Bur. Sci. 55586, J. M. Mendoza,* August 1, 1933, on the ground, *Bur. Sci. 55768, P. S. Gener,* November 7, 1933, on the ground.

Lepiota americana Peck resembles closely in shape a poisonous Philippine species, *L. chlorospora* Copel., particularly in the button stage. *Lepiota chlorospora,* however, has green spores, making the gills look greenish.

This mushroom came to the notice of the senior author in February, 1933, when a sample batch was referred by a member of the staff of the College of Medicine, University of the Philippines, to the Bureau of Science to find out whether or not it was edible. There was doubt in the beginning as to the edibility of this mushroom, since it resembles *Lepiota chlorospora,* which is a poisonous species. The sample was bought in Paco Market, Manila. Following the source of the purchase, it was found that this mushroom had been collected in Pandacan, Manila, in a place which had been filled in with all kinds of refuse, generally mixed with discarded straw and manure taken from United States Army stables. It seems that this mushroom is not well known even in that vicinity, for only one family in that neighborhood collects it in baskets every morning to sell

[2] The following description is based on fresh full-grown specimens collected during the mushroom season.

at Paco Market. To test the edibility of this mushroom a few were cooked in the Bureau of Science laboratory. The mushroom was found delicious and a bit peppery. On several occasions later, from time to time, the mushroom was cooked in the laboratory, and several members of the staff ate it with their other food. In taste it is comparable to any of our most delicious mushrooms. This mushroom, because of its white spores unlike *Volvaria esculenta* and *Psaliotas* which have colored spores, has the advantage of not turning the soup black or dark brown on being cooked. It keeps well in the dried form, and when soaked in water before being cooked it somewhat resumes its original form. During the numerous collecting trips made by the senior author, he has never seen this kind of mushroom. Possibly it was accidentally brought into the Philippines from abroad with animal feed, such as hay, for United States Army horses.

It is abundant during May to as late as February.

ILLUSTRATIONS

PLATE 1. LEPIOTA AMERICANA PECK

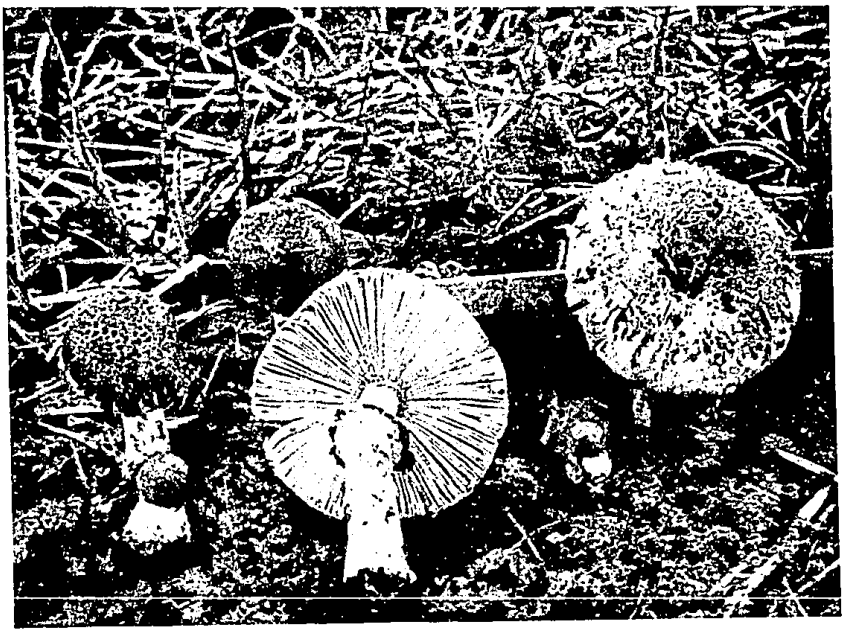
FIG. 1. The mushroom in natural habitat, showing different stages. (Photographed by Domingo Farol of the Bureau of Science.)

2. The mushroom as sorted ready for the market. (Photographed by Domingo Farol of the Bureau of Science.)

PLATE 2. LEPIOTA AMERICANA PECK

FIG. 1. Photomicrograph of a section of the gill, showing the hymenium with basidia; × 235.

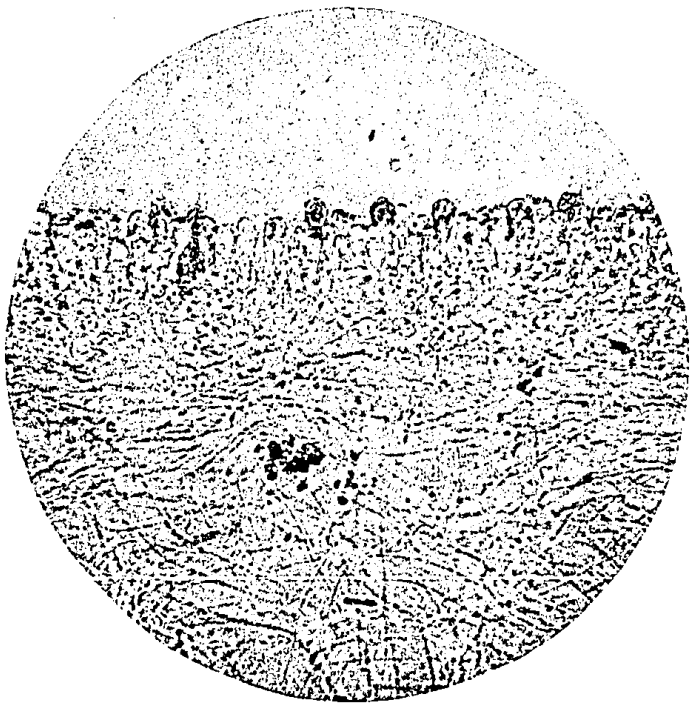
2. Photomicrograph of the spores, from spore collection; × 433.



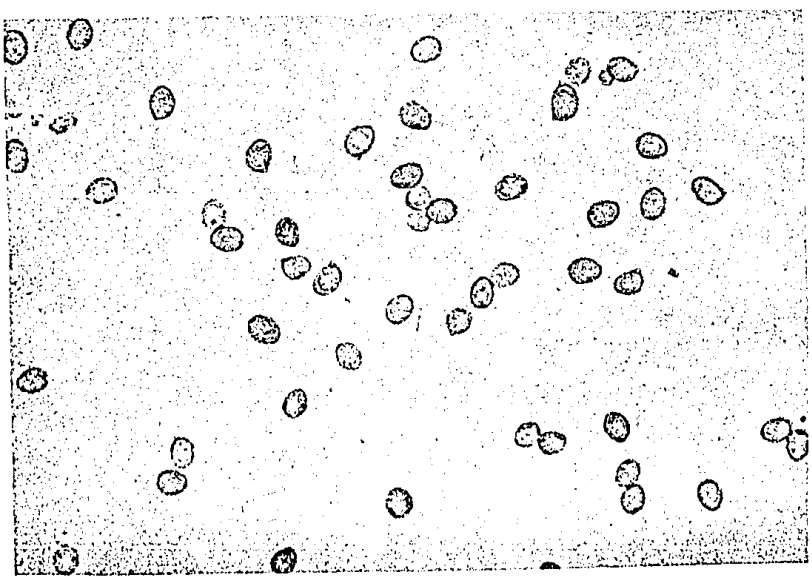
1

2

PLATE 1.



1



2

PLATE 2.