**MS-4787: Abba Hillel Silver Papers, 1902-1989.**
Series VIII: Scrapbooks, 1902-1964, undated.
Sub-series B: Miscellaneous Scrapbooks, 1927-1962.

| Reel | Box | Folder |
|---|---|---|
| 235 | 135 | 112 |

Boletus mushroom dedicated to Rabbi Silver, 1958.

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To Dr A. Silver and Mrs Silver
with great admiration
and friendship
Nadia & Israel Reichert
23.4.58.

**A NEW SPECIES OF BOLETUS MUSHROOM IN ISRAEL**

**DEDICATED TO**

**RABBI DR. ABBA HILLEL SILVER**

**BY**

**PROF. I. REICHERT**

**Hebrew University, Jerusalem**

**Agricultural Research Station, Rehovot.**



AMERICAN FRIENDS OF THE HEBREW UNIVERSITY, INC.

excerpt from Letter January 22, 1958

Professor Israel Reichert from the Hebrew University's School of Agriculture, is at present here in New York. I understand he is a personal friend of yours and most certainly he is one of your most fervent admirers. Professor Reichert has found and classified an edible mushroom which grows, apparently, only in the Middle East. He has found it in the Emek and in Hefzi Ba.

It is the intention of Professor Reichert to honor you in the most impressive way a scientist can honor an outstanding personality: by giving this newly found mushroom your name, calling it BOLETUS SILVERIANA.

# A NEW SPECIES OF BOLETUS MUSHROOM IN ISRAEL

DEDICATED TO

RABBI DR. ABBA HILLEL SILVER

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BOLETUS (XEROCOMUS) SILVERIANA nov. sp. I. Reichert. (Figure 1, 2).

Pileus: 2.5-10 cm broad, hemispheric, then convex, finally subplane, often of irregular shape and wavy; margin not covering the tubes, often radially deeply split, subtomentose, dry, in age subviscid to the touch when wet; yellow-ochraceous or ochraceous when young, with age cinnamon-brown ("Cinnamon-Brown" and "Saccardo's Umber")* or brown gray, rarely chestnut brown ("Chestnut-Brown").

Tubes: 4-10 cm long, adnate or irregularly sinuate and then often decurrent into thin ribs; when depressed the tubes which reach the stipe are lamelloid; the marginal tubes are uncovered by the edge of the cuticle, colour when young, yellow or greenish-yellow ("Primuline Yellow", "Light Cadmium", "Aniline Yellow"); when cut readily staining bright blue-green, then dark blue and finally almost black.

Orifice of pores: Irregularly angular, more or less elongated, about 1-1.5 mm long, golden yellow or yellow-ocher ("Yellow-Ocher", "Ochraceous-Orange"); being fresh becoming blue-green when touched.

Stipe: 2.5-7 cm long, thick at the apex, 10-12(25) mm, tapering downwards to an almost pointed base; generally somewhat flattened; solid; fasciation of two stipes often occur; colour golden yellow,

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*The colours in quotation marks were taken from Ridgway - Color Standards.

later yellow ocher, streaked with red; in age the red colour ("Vandyke Red", Pompeian Red") extends and becomes prominent; when very young, pruinose near the apex, with age the yellow pruina disappears, showing a sulcately ribbed or sometimes anastomosing structure which appears to be a prolongation of the tube; lower part of the stipe is fibrillose and is darker owing to the closely packed darker minute fibrils.

Flesh: In the pileus the colour is yellow, the upper part dirty yellow unchanging when cut, while the lower part (above the tubes) is bright yellow and turns blue when cut; the central part above the stipe shows a tendency to become reddish and does not change when cut; in the stipe the flesh is yellow turning blue when cut except in a very thin external layer, the upper part of the stipe is streaked with red which tends with age to expand upwards to the flesh of the pileus, and downwards to other parts of the stipe; only the base and a very thin layer near the cortex remains yellow with age; under vapour or drops of ammonia the flesh of young receptacles stains purple violaceous in the upper part (except in a layer of 1-2 mm under the cuticle), while towards the tubes it turns to orange; with KOH the yellow flesh turns to ocher-yellow, the reddish-purple of the streaks (or veins) disappear; with $H_2SO_4$ the yellow flesh stains yellow-ocher, with HCl the yellow flesh stains orange-ocher and the purplish veins become stronger in colour, with acidum aceticum yellow flesh stains bright orange and the purplish colour of the veins becomes stronger.

Spores: (8.5)10.5-13.5(15) x (4.5)5.25-6(7.5) $\mu$, subfusiform, smooth, ocher-brown. (Figure 3).

Basidia: 22.5-28 x (7.5)9-10.5(14.25) $\mu$, mostly tetra-spored.

Sterigmata: Up to 6 long.

Cystidia: 22-50 x 5.25-7.25 $\mu$, mostly of fusiform or ventricose-rostrate shape, pale brown colour. (Figure 4).

The anatomical structure of the cortex is as follows: The epicutis is of trichodermic structure, formed of spaced septate hyphae, 2-4.5 $\mu$ in diameter, more or less perpendicular to the surface of the pileus;

the hypodermium consists of interwoven short-celled hyphae of 4.5-7.5 x 3.75-5.25 µ. Structure of the trama is of the phylloporus sub-type of bilaterality, the lateral stratum differing only slightly from the mediostratum, the diameter of the hyphae being 3.75-5.25 µ.

Habitat: In Eucalyptus forests, growing in groups, caespitose. Jezreel Valley: Beith-Alfa near a rivulet, 60 m, 10.11.1950, (leg. M. Shlupsky), 25.11.1950, (leg. A. Sheflan), 23.11.1951, 21.11.1956, (leg. Z. Hershenzon); Jezreel Valley: Kefar Yehoshua near the Kishon River, 30.11.1952, (leg. M. Zaharoni).

Remarks: This fungus, which appears soon after the first rains and disappears very early in the season, was found in two places near rivers where the water-table was very high. This fungus seems to belong to the Subtomentosi (Fr.) Sing. section (5), because of the structure of the trama which is of the phylloporus-sub-type of bilaterality. Our fungus differs from X. subtomentosus because of its flesh turning blue while that of X. subtomentosus does not change. It differs from X. chrysenteron because of its flesh under the cuticle is not red.

Our fungus must be close to B. armeniacus Quel., which could also belong to the Subtomentosi Sing. section. Singer does not mention this species in his "Agaricales".

It differs from B. armeniacus species in these features: (a) Colour of the pileus: X. armeniacus Quel. is "incarnato rosea" according to the Latin diagnosis of Quelet (4), also according to Maublanc it is reddish, as he writes "resemblant a Boletus versicolor par la couleur du chapeau" (3). Our specimen, being more ocher-brown, shows no tendency towards the above colours. (b) Concerning the stipe: B. armeniacus is "gracillis" according to the Latin diagnosis (4), and "elance" according to Gilbert (1), while in our specimen the length of the stipe is generally shorter than the diameter of the pileus and thick

above. (c) The habitat of our specimen is different from that of X. armeniacus because they are exclusively attached to Eucalyptus trees.

We therefore think that our specimen is a new species.

The specimen of Boletus armeniacus described by Joachim (2) as having a thick stipe with protruding ribs, seems to resemble our fungus more than to the type species described by Quelet.

I wish to express my indebtedness to Dr. Zehara Avizohar-Hershenzon for her valuable help in describing this new species.

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5. SINGER, R. 1949. Agaricales (Lilloa Revista de Botanica Tome XXII), Argentina, 832.

BOLETUS SILVERIANA I. Reichert

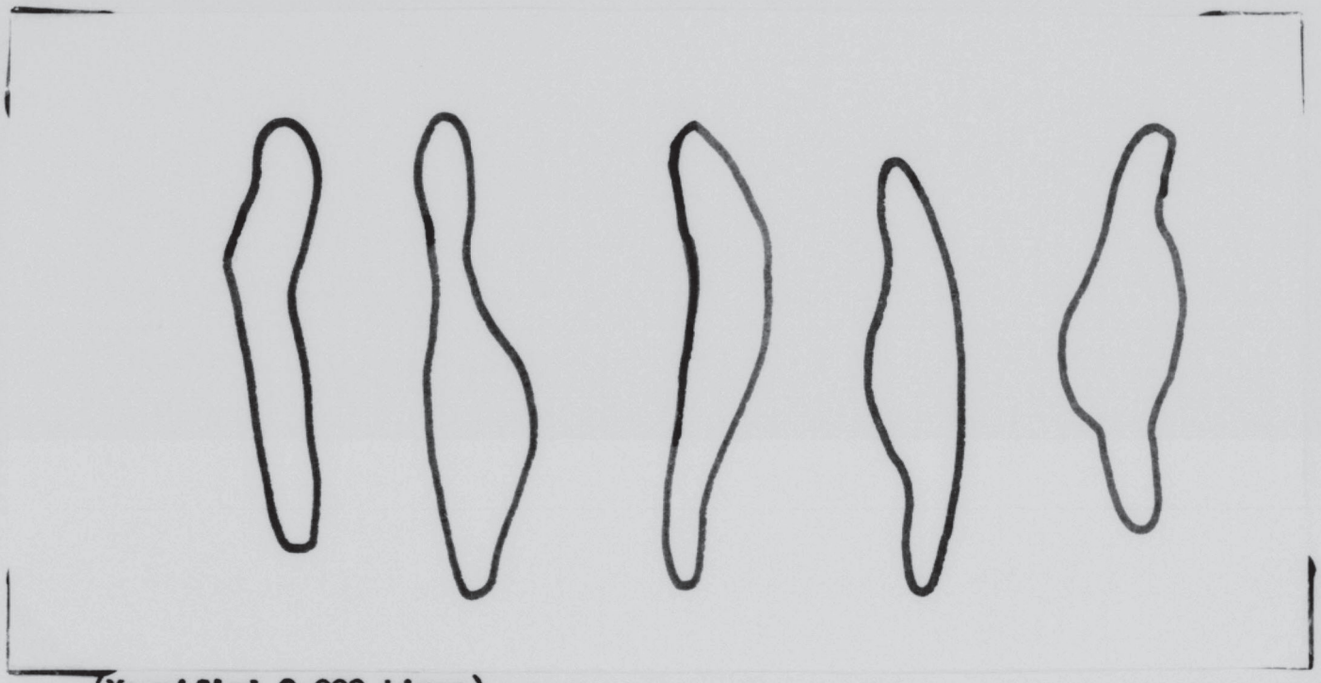
Figure 1. In Eucalyptus forest, near the Kishon River. Kefar-Yehoshua, 30.11.1952. (half its natural size).

Figure 2. In Eucalyptus forest, near a rivulet. Beith-Alfa, 19.12.1950. (half its natural size).

Figure 3. Spores: (Magnified 400 times).

BOLETUS SILVERIANA I. Reichert

Figure 4. Cystidia.



(Magnified 2,000 times).



(Magnified 1,700 times).