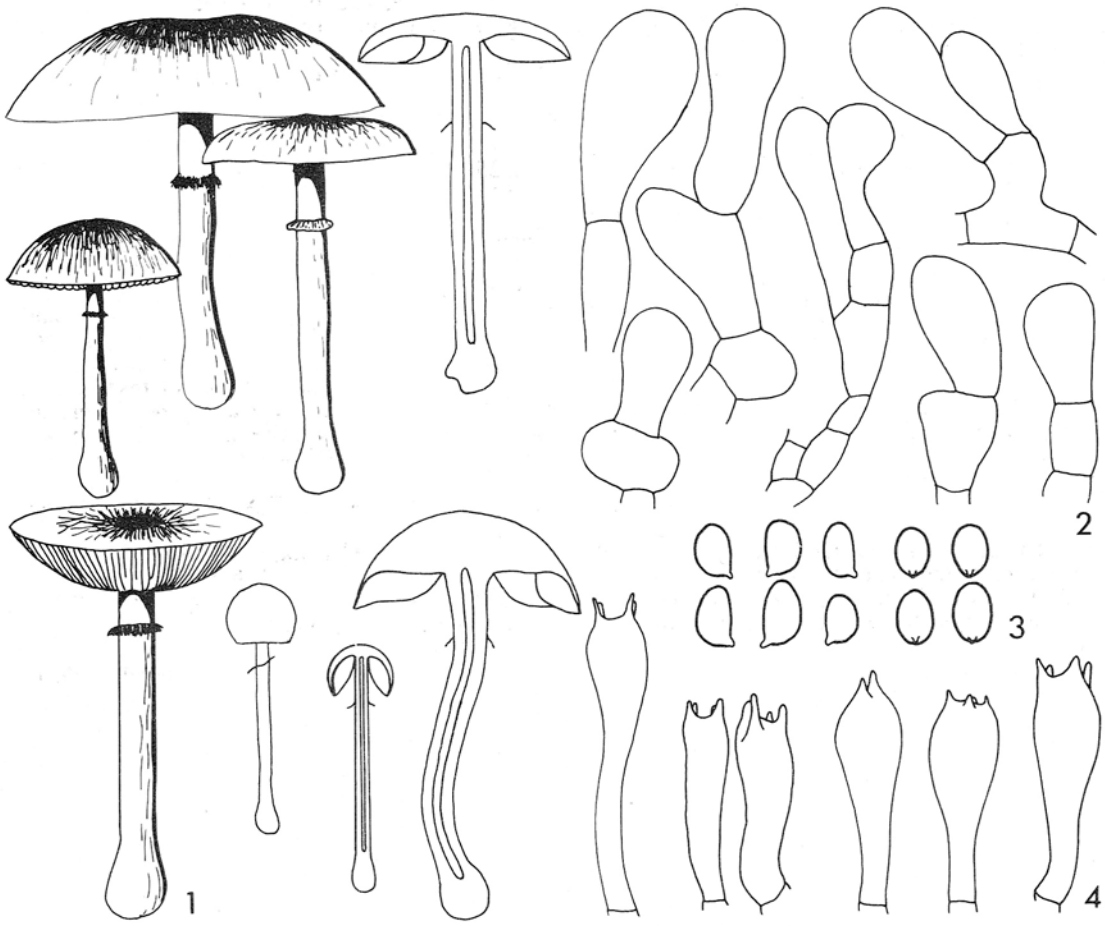
AGARICUS SEMOTUS



1, Carpophores (× 1); 2, cheilocystidia; 3, basidiospores; 4, basidia. (2-4, × 1500).

Agaricus semotus Fr., Mon. Hym. Suec. 2:347. 1863.

PILEUS convex to umbonate or somewhat depressed, often expanding to nearly plane at maturity, dry, with a covering of appressed fibrils or squamules that range in colour from a dull gray-brown to reddish brown, pinkish brown, purple-brown, vinaceous or ochraceous, white to yellowish below the fibrils and often lacking the colouration in the fibrils at first, often staining yellow when bruised, slowly changing to yellow, orange or reddish when dried or remaining unchanged, 14-58 mm in diameter. STIPE bulbous at base, usually fairly slender, minutely yellow- to white-fibrillose below the annulus (best seen when dried), often yellowing where handled, dry, glabrous above the annulus, hollow or stuffed, white to yellowish, yellowish to orange or reddish when dried, usually white- to yellow-mycelioid at base, 23-65 × 1.5- 10.0 mm. LAMELLAE whitish to pallid at first, then gray or pinkish brown and finally purplish black. ANNULUS white or yellowish, delicate and cortina-like, remaining on the stipe or adhering to the pileus margin, single, drying whitish to bright yellow. FLESH white, yellowish or not when cut, often drying yellowish, with odour and taste of almonds (weak in some).

CUTICULAR HYPHAE yellowish, smooth or faintly roughened, radiating and essentially parallel, lacking clamps, 3-14 μ in diameter. LAMELLAR TRAMA parallel, consisting of clampless hyphae, with a distinct subhymenium. PLEUROCYSTIDIA none. CHEILOCYSTIDIA somewhat vesiculose to nearly cylindrical, septate, often branched, with end cells 5.5-24 × 4-12 μ. BASIDIA clavate, 4-spored (numerous 2-spored basidia in DAOM 140802 & 140803), 16-26 × 4-7 μ. BASIDIOSPORES

unilaterally flattened-elliptical in side view, ovate and broadest at base to elliptical in face view, with large and prominant apiculus, thick-walled and without germ pore, smooth, somewhat dextrinoid and cyanophilous when immature, 3.8-6.1 × 2.7-4.1 μ (up to 10.5 × 4.8 on 2-spored basidia).

SUBSTRATE: On the ground in lawns and fields and in the woods (especially coniferous woods).

DISTRIBUTION: Nova Scotia, Quebec, Ontario.

COLLECTIONS (selected): N.S., Kentville, on the ground, 25.VIII.1953, DAOM 39191 (Harrison). Que., Rivière Ouelle, on the ground, 30.VII.1957, DAOM 56581 (Groves & Jackson). Ont., Hastings Co., NW of Mt. Pleasant, 16.VIII.1972, DAOM 140803 (Malloch); Carleton Co., Ottawa, on lawn, 30.IX.1971, DAOM 140804 (Barry). There are 32 Canadian collections in DAOM.

NOTES: This is a variable species in Canada and seems to encompass collections referable to certain N. American species, particularly *A. micromegathus* Peck, *A. diminutivus* Peck, and possibly *A. auricolor* Krieger. The dark coloured fibrils on the pileus are most evident in more mature basidiocarps. Likewise, the characteristic yellow or orange colour of dried specimens varies with the maturity of the basidiocarps and is most evident in young specimens. The yellowing often takes several months to occur.

Our Canadian material fits the European concept of *A. semotus* rather well. I have examined collections from Sweden and they are obviously conspecific with ours. In Europe, *A. semotus* is known from Czechoslovakia, Denmark, England, France, Germany, and Sweden. There are two collections in DAOM from Michigan, U.S.A.

A. semotus appears to be an edible species. Mr. A. L. Barry, who collected DAOM 140804, told me that it is not only edible, but very good.

The most characteristic features of *A. semotus*, as found in eastern Canada, are: 1) a bulbous stipe, 2) a faint to distinct odour of almonds, 3) pileus less than 60 mm in diameter, 4) fibrillose-squamulose pileus, 5) basidiospores less that 6 μ long, 6) a very delicate, almost cortina-like annulus, and 7) the tendency of the basidiocarps to change slowly to yellow or orange upon drying.

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